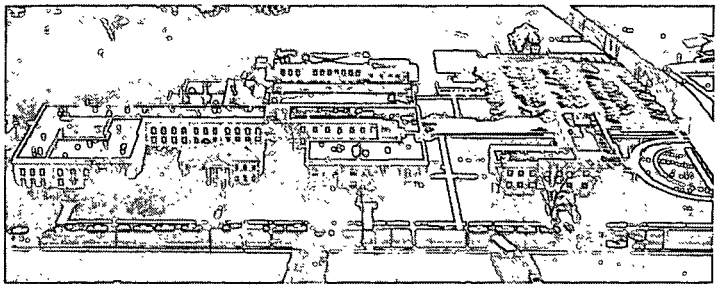

THE INSTITUTE OF PAPER CHEMISTRY, APPLETON, WISCONSIN

PERMANENCE OF COATED PAPER FOR PRINTED LIBRARY MATERIALS

Project 3655

Report One

A Progress Report

to

NATIONAL INFORMATION STANDARDS ORGANIZATION

January 5, 1989

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THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

PERMANENCE OF COATED PAPER FOR PRINTED LIBRARY MATERIALS

SUMMARY

Coated papers intended for printed library materials were subjected to accelerated aging at 90°C and 50% RH. The papers were then tested for various properties to show the affect of this aging on these properties.

The properties included folding endurance, tensile strength, and tear resistance. Unaged control samples were also tested for pH and alkaline reserve.

Separate from the aging study, tests were made to determine the weight, pH, and alkaline reserve of both the base paper and the coating of the samples.

This report includes a description of the test procedures and tabulations of the test results.

INTRODUCTION

Papers intended for the library market are expected to have sufficient longevity so as to last several hundred years under normal conditions of library circulation and storage without significant deterioration. The NISO-developed American National Standard for Permanence of Paper for Printed Library Materials (Z39.48) was published in 1984. The standard sets the criteria for permanence of uncoated papers. The standard is being revised to encompass coated papers. This study was undertaken to develop base-line data for the NISO Standards Committee to use in establishing criteria for coated papers.

The study was conducted in two parts. For Part 1 a defined set of tests were performed on 11 coated and 2 uncoated paper samples supplied by NISO. Additional specimens of the same 13 samples were subjected to accelerated aging at 90°C and 50% RH. Tests were then performed on the aged specimens.

Part 2 of the study was aimed at determining the pH, alkaline reserve, and weight of coated papers and, separately, the same properties of the base paper and coating. For this purpose a surface grinding procedure was used to remove the coating from the base paper. Properties of the coating were estimated from differences between actual measurements made on the coated paper and the base paper.

PROCEDURES

Part 1 - The 184 sheets provided for each of the 11 coated and 2 uncoated samples were randomly divided into 4 groups of 46 sheets each. One group was selected as the control, or unaged, sample. The remaining 3 groups were exposed to accelerated aging in a circulating oven controlled at 90°C and 50% RH. The groups were removed from the oven after aging periods of 17, 120, and 168 hours, respectively. All 4 groups were then preconditioned at 15% RH, 23°C, and then conditioned at 50% RH, 23°C, before testing. The testing for each of the 13 samples was completed within two weeks after aging.

It is known that volatiles given off by one sample can sometimes affect the aging rate of other samples. Hence, each of the 13 samples was exposed in the aging chamber independently.

Following aging, 14 sheets were selected from each group for fold and tensile testing. The sheets were cut so that 1 MD tensile, 1 CD tensile, 6 MD fold, and 6 CD fold tests could be made on each sheet. The tensile strength tests were made in accordance with TAPPI method T 494 om-81. The folding endurance tests were made with the MIT tester in accordance with TAPPI method T 511 om-83.

Parts of 7 of these 14 sheets, of the unaged sample only, were tested for pH and alkaline reserve. One of each type of test was made on each of the seven sheets. The pH tests were made in accordance with the cold extraction method described in TAPPI T 509 om-83. Alkaline reserve was measured as percent calcium carbonate in accord with ASTM procedure D3290-81, subsection 11.4.

The remaining 32 sheets of each group were used for tear testing. The sheets were cut so that 10 MD and 10 CD tests could be made. The tests were made in accordance with TAPPI method T 414 om-82, using a 1600 g pendulum.

Part 2 - This part of the study was conducted using specimens of the eleven coated paper samples. A surface grinding procedure was used to remove the coating from the base paper. Measurements of weight, pH, and alkaline reserve were then made on the coated paper before grinding and on the base paper after grinding. It is not possible to use the surface grinding procedure to remove the base paper and leave an intact coating. Hence, the properties of the coating were calculated from differences between those of the coated paper and the base paper.

For grinding, the specimens are held on a specially designed vacuum plate. Vacuum is provided by grooves cut in the plate around the periphery of the area of the specimen to be ground. The plate is then held magnetically on the bedplate of a machine shop surface grinder. Prior to sample preparation, the vacuum plate is ground in place on the surface grinder so that its surface is exactly parallel to the plane of bedplate motion.

The interface between the coating and base paper is not a perfect plane due to surface roughness of the base paper. Hence, a ground path through the average interface will remove part of the base paper in some areas, and leave some coating material intact in other areas. This average interface, based on visual estimates, was used for determining weight. This procedure results in a small error in the determined weights of the coating and base paper, depending on the relative density of each. For purposes of determining alkaline reserve of the base paper, the specimens were ground slightly deeper so that all of the coating material was removed.

Coating weight was calculated from the arithmetic difference between the weights of the coated sheet and the base paper. The alkaline reserve of the coating was calculated from:

$$x = (ab-cd)/(b-d)$$

where: a = alkaline reserve of the coated sheet
b = weight of coated sheet
c = alkaline reserve of the base stock
d = weight of base stock

It would not be proper to make similar computations of the pH of the coating. However, as will be seen later, for each sample the pH of the coated paper and of the base stock is practically identical. Hence, it would be safe to assume that the pH of the coatings would closely approximate the reported values.

TEST RESULTS

The test results for Part 1 are given in Tables 1 through 8 and in the appendix. Table 1 is a summary table of all test data showing average results only. The averages and standard deviations for each type of test are summarized in Tables 2 through 8, respectively. Standard deviations were calculated from:

$$s = [(N\ \Sigma(x)^2 - (\Sigma x)^2)/(N(N-1))]^{1/2}$$

The individual test results for all test types are given in the appendix. The tensile test results include stretch, tensile energy absorption, and tensile stiffness, in addition to tensile strength. These properties were not requested but are automatically reported by our data acquisition system.

Table 1. Data summary.

Paper	Treatment	Log_{10} Fold MD	Log_{10} Fold CD	Tear, mN MD	Tear, mN CD	Tensile, kN/m MD	Tensile, kN/m CD	pH	Alkaline Reserve %
A	Control	2.72	2.19	452	531	5.41	2.83	8.19	3.10
	90°C Aged 17 hr	2.66	2.25	421	506	5.80	2.77	--	--
	50% RH Aged 120 hr	2.64	2.14	433	509	5.86	2.71	--	--
	Aged 168 hr	2.64	2.06	420	522	5.84	2.74	--	--
B	Control	2.26	1.92	361	437	5.78	2.85	8.40	5.70
	90°C Aged 17 hr	2.17	1.85	349	414	5.91	2.85	--	--
	50% RH Aged 120 hr	2.11	1.81	358	421	5.82	2.78	--	--
	Aged 168 hr	1.99	1.74	356	437	5.78	2.75	--	--
C	Control	2.70	2.18	454	537	5.97	2.73	8.25	2.20
	90°C Aged 17 hr	2.66	2.19	440	534	6.07	2.82	--	--
	50% RH Aged 120 hr	2.58	2.00	428	520	5.82	2.63	--	--
	Aged 168 hr	2.55	1.91	433	523	5.72	2.61	--	--
D	Control	2.48	2.04	392	468	5.38	2.45	9.11	6.49
	90°C Aged 17 hr	2.32	2.02	399	456	5.28	2.47	--	--
	50% RH Aged 120 hr	2.34	1.96	393	471	5.20	2.47	--	--
	Aged 168 hr	2.25	2.02	396	464	5.13	2.41	--	--
E	Control	2.71	1.96	428	559	6.50	2.30	9.15	5.19
	90°C Aged 17 hr	2.70	1.94	433	566	6.63	2.33	--	--
	50% RH Aged 120 hr	2.69	1.88	423	564	6.41	2.30	--	--
	Aged 168 hr	2.66	1.86	428	570	6.51	2.21	--	--
F	Control	1.91	1.32	724	822	5.84	2.52	5.68	0.00
	90°C Aged 17 hr	1.77	1.30	633	753	5.99	2.54	--	--
	50% RH Aged 120 hr	1.41	1.13	486	571	5.43	2.19	--	--
	Aged 168 hr	1.20	1.04	426	511	5.30	2.28	--	--
G	Control	1.79	1.38	545	600	4.88	2.55	9.00	6.40
	90°C Aged 17 hr	1.75	1.40	522	581	5.07	2.45	--	--
	50% RH Aged 120 hr	1.72	1.43	523	576	5.01	2.55	--	--
	Aged 168 hr	1.73	1.40	527	564	5.01	2.42	--	--
H	Control	2.70	2.28	304	399	6.62	2.56	6.84	0.10
	90°C Aged 17 hr	2.62	2.24	306	388	6.72	2.53	--	--
	50% RH Aged 120 hr	2.36	2.01	260	347	6.25	2.39	--	--
	Aged 168 hr	2.17	1.86	247	334	6.08	2.36	--	--
I	Control	2.42	2.04	329	435	5.38	2.12	8.50	9.57
	90°C Aged 17 hr	2.30	1.92	316	401	5.46	2.12	--	--
	50% RH Aged 120 hr	2.28	1.84	304	405	5.50	2.13	--	--
	Aged 168 hr	2.28	1.81	320	401	5.44	2.08	--	--
J	Control	2.69	2.02	377	489	6.38	2.75	6.95	0.07
	90°C Aged 17 hr	2.59	2.00	364	484	6.45	3.01	--	--
	50% RH Aged 120 hr	2.42	1.91	348	461	6.14	2.54	--	--
	Aged 168 hr	2.45	1.80	347	433	6.18	2.54	--	--
K	Control	1.86	2.16	417	370	3.99	2.84	9.05	11.27
	90°C Aged 17 hr	1.74	2.16	429	362	4.00	2.98	--	--
	50% RH Aged 120 hr	1.64	2.04	408	377	3.94	2.84	--	--
	Aged 168 hr	1.71	2.08	408	382	4.02	2.72	--	--
L	Control	2.36	2.36	427	458	4.90	2.38	9.14	10.13
	90° C Aged 17 hr	2.22	2.26	443	457	4.44	2.12	--	--
	50% RH Aged 120 hr	2.24	2.17	428	479	4.68	2.20	--	--
	Aged 168 hr	2.20	2.16	434	464	4.85	2.25	--	--
M	Control	2.40	2.01	401	489	5.36	2.02	9.11	6.57
	90°C Aged 17 hr	2.35	1.94	406	494	5.33	1.99	--	--
	50% RH Aged 120 hr	2.31	1.82	395	483	5.34	1.96	--	--
	Aged 168 hr	2.26	1.88	388	493	5.34	2.00	--	--

Table 2. Summary of MD tensile data.

Sample Code	MD Tensile Strength, kN/m Unaged	Aged 17 hours	Aged 120 hours	Aged 168 hours
A - Average	5.41	5.80	5.86	5.84
Std. Dev.	0.259	0.213	0.212	0.280
B - Average	5.78	5.91	5.82	5.78
Std. Dev.	0.251	0.277	0.340	0.315
C - Average	5.97	6.07	5.82	5.72
Std. Dev.	0.245	0.217	0.274	0.140
D - Average	5.38	5.28	5.20	5.13
Std. Dev.	0.198	0.126	0.178	0.231
E - Average	6.50	6.63	6.41	6.51
Std. Dev.	0.241	0.221	0.225	0.337
F - Average	5.84	5.99	5.43	5.30
Std. Dev.	0.241	0.197	0.240	0.245
G - Average	4.88	5.07	5.01	5.01
Std. Dev.	0.190	0.186	0.197	0.224
H - Average	6.62	6.72	6.25	6.08
Std. Dev.	0.193	0.274	0.202	0.231
I - Average	5.38	5.46	5.50	5.44
Std. Dev.	0.241	0.188	0.222	0.215
J - Average	6.38	6.45	6.14	6.18
Std. Dev.	0.160	0.188	0.278	0.216
K - Average	3.99	4.00	3.94	4.02
Std. Dev.	0.190	0.150	0.200	0.171
L - Average	4.90	4.44	4.68	4.85
Std. Dev.	0.651	1.316	0.367	0.439
M - Average	5.36	5.33	5.34	5.34
Std. Dev.	0.157	0.149	0.214	0.226

Table 3. Summary of CD tensile data.

Sample Code	CD Tensile Strength, kN/m Unaged	Aged 17 hours	Aged 120 hours	Aged 168 hours
A - Average	2.83	2.77	2.71	2.74
Std. Dev.	0.075	0.070	0.076	0.109
B - Average	2.85	2.85	2.78	2.75
Std. Dev.	0.144	0.107	0.112	0.089
C - Average	2.73	2.82	2.63	2.61
Std. Dev.	0.068	0.078	0.100	0.095
D - Average	2.45	2.47	2.47	2.41
Std. Dev.	0.102	0.112	0.099	0.078
E - Average	2.30	2.33	2.30	2.21
Std. Dev.	0.138	0.157	0.118	0.159
F - Average	2.52	2.54	2.19	2.28
Std. Dev.	0.155	0.070	0.191	0.063
G - Average	2.55	2.45	2.55	2.42
Std. Dev.	0.090	0.086	0.072	0.075
H - Average	2.56	2.53	2.39	2.36
Std. Dev.	0.076	0.097	0.100	0.051
I - Average	2.12	2.12	2.13	2.08
Std. Dev.	0.093	0.113	0.094	0.073
J - Average	2.75	3.01	2.54	2.54
Std. Dev.	0.063	0.061	0.082	0.055
K - Average	2.84	2.98	2.84	2.72
Std. Dev.	0.157	0.161	0.137	0.156
L - Average	2.38	2.12	2.20	2.25
Std. Dev.	0.155	0.154	0.132	0.196
M - Average	2.02	1.99	1.96	2.00
Std. Dev.	0.073	0.074	0.048	0.048

Table 4. Summary of MD tear data.

Sample Code	Tear Resistance, mN Unaged	Aged 17 hours	Aged 120 hours	Aged 168 hours
A - Average	451.9	421.3	433.1	419.7
Std. Dev.	29.9	16.6	19.1	14.0
B - Average	360.9	349.1	357.8	356.2
Std. Dev.	9.1	7.6	9.9	18.2
C - Average	453.5	440.1	427.7	433.1
Std. Dev.	8.9	17.1	14.8	14.7
D - Average	392.3	399.3	393.1	396.2
Std. Dev.	9.1	13.0	9.4	11.2
E - Average	427.6	433.1	422.9	427.6
Std. Dev.	10.6	17.7	12.0	16.2
F - Average	724.1	633.1	485.6	426.0
Std. Dev.	26.9	21.6	27.8	16.1
G - Average	545.3	521.7	523.3	527.2
Std. Dev.	14.0	13.5	11.1	13.2
H - Average	304.4	306.0	260.5	247.3
Std. Dev.	8.9	9.1	10.3	9.9
I - Average	328.7	316.2	304.4	320.1
Std. Dev.	13.6	14.3	7.2	9.6
J - Average	376.6	363.6	348.3	346.8
Std. Dev.	9.1	20.6	9.2	33.9
K - Average	417.4	429.2	408.0	408.0
Std. Dev.	12.7	11.1	10.5	12.3
L - Average	426.8	443.3	427.6	433.9
Std. Dev.	13.4	12.9	15.8	13.9
M - Average	400.9	406.4	395.4	387.6
Std. Dev.	5.8	12.2	9.9	11.8

Table 5. Summary of CD tear data.

Sample Code	Tear Resistance, mN Unaged	Aged 17 hours	Aged 120 hours	Aged 168 hours
A - Average	531.1	506.0	509.2	521.7
Std. Dev.	14.3	14.4	14.5	11.8
B - Average	437.0	414.2	421.3	437.0
Std. Dev.	12.8	7.2	9.8	19.6
C - Average	537.4	533.5	520.2	523.3
Std. Dev.	19.3	8.3	11.1	12.3
D - Average	468.4	455.8	470.7	463.7
Std. Dev.	13.4	10.1	17.7	10.8
E - Average	559.4	565.7	564.1	569.6
Std. Dev.	12.3	14.1	13.0	12.4
F - Average	822.2	753.2	571.2	510.7
Std. Dev.	18.4	16.1	11.0	19.7
G - Average	600.2	580.6	575.9	564.1
Std. Dev.	15.4	14.3	11.2	16.7
H - Average	399.3	388.4	346.8	334.2
Std. Dev.	6.9	16.2	7.2	5.5
I - Average	434.6	400.9	404.6	400.9
Std. Dev.	21.9	9.4	13.3	11.4
J - Average	488.8	484.1	461.3	433.1
Std. Dev.	12.2	11.1	7.2	8.9
K - Average	369.5	361.7	376.6	381.7
Std. Dev.	12.5	12.5	14.8	7.9
L - Average	458.2	456.6	478.6	463.7
Std. Dev.	24.3	11.0	26.7	16.3
M - Average	488.8	493.5	483.3	492.7
Std. Dev.	13.9	7.8	12.4	8.1

Table 6. Summary of MD MIT fold data.

Sample Code	$\log_{10}$ MD Folding Endurance Unaged	Aged 17 hours	Aged 120 hours	Aged 168 hours
A - Average	2.718	2.662	2.639	2.639
Std. Dev.	0.042	0.045	0.038	0.056
B - Average	2.255	2.166	2.110	1.988
Std. Dev.	0.053	0.070	0.91	0.115
C - Average	2.696	2.655	2.580	2.546
Std. Dev.	0.036	0.054	0.056	0.057
D - Average	2.481	2.319	2.337	2.250
Std. Dev.	0.038	0.036	0.060	0.093
E - Average	2.711	2.700	2.687	2.659
Std. Dev.	0.057	0.053	0.033	0.076
F - Average	1.914	1.768	1.412	1.198
Std. Dev.	0.048	0.047	0.072	0.077
G - Average	1.792	1.748	1.721	1.726
Std. Dev.	0.068	0.053	0.059	0.034
H - Average	2.699	2.621	2.365	2.168
Std. Dev.	0.044	0.055	0.061	0.096
I - Average	2.415	2.305	2.284	2.275
Std. Dev.	0.090	0.104	0.081	0.084
J - Average	2.693	2.587	2.420	2.450
Std. Dev.	0.060	0.069	0.104	0.037
K - Average	1.855	1.740	1.635	1.713
Std. Dev.	0.125	0.096	0.105	0.140
L - Average	2.357	2.223	2.241	2.204
Std. Dev.	0.153	0.071	0.109	0.087
M - Average	2.397	2.346	2.314	2.258
Std. Dev.	0.057	0.078	0.058	0.060

Table 7. Summary of CD MIT fold data.

Sample Code	$\log_{10}$ CD Folding Endurance Unaged	Aged 17 hours	Aged 120 hours	Aged 168 hours
A - Average	2.191	2.254	2.138	2.056
Std. Dev.	0.089	0.059	0.053	0.089
B - Average	1.915	1.851	1.812	1.738
Std. Dev.	0.114	0.179	0.115	0.091
C - Average	2.181	2.188	1.997	1.907
Std. Dev.	0.059	0.074	0.069	0.111
D - Average	2.038	2.024	1.959	2.015
Std. Dev.	0.102	0.081	0.077	0.061
E - Average	1.965	1.941	1.876	1.856
Std. Dev.	0.047	0.041	0.078	0.070
F - Average	1.324	1.299	1.131	1.043
Std. Dev.	0.037	0.049	0.043	0.035
G - Average	1.375	1.403	1.431	1.397
Std. Dev.	0.055	0.070	0.073	0.069
H - Average	2.285	2.237	2.011	1.860
Std. Dev.	0.075	0.126	0.094	0.129
I - Average	2.042	1.922	1.835	1.813
Std. Dev.	0.159	0.097	0.125	0.095
J - Average	2.019	2.000	1.913	1.796
Std. Dev.	0.100	0.106	0.098	0.116
K - Average	2.156	2.162	2.035	2.075
Std. Dev.	0.075	0.059	0.073	0.071
L - Average	2.365	2.260	2.171	2.158
Std. Dev.	0.101	0.083	0.087	0.088
M - Average	2.009	1.938	1.821	1.884
Std. Dev.	0.087	0.068	0.079	0.056

Table 8. Summary of hydrogen ion concentration and alkaline reserve data.

Sample Code	Hydrogen Ion Concentration (pH) Average	Std. Dev.	Alkaline Reserve, % $CaCO_3$ Average	Std. Dev.
A	8.19	0.130	3.10	0.000
B	8.40	0.091	5.70	0.082
C	8.25	0.188	2.20	0.000
D	9.11	0.113	6.49	0.038
E	9.15	0.102	5.19	0.069
F	5.68	0.076	0.00	0.000
G	9.00	0.053	6.40	0.000
H	6.84	0.011	0.10	0.000
I	8.50	0.140	9.57	0.076
J	6.95	0.145	0.07	0.049
K	9.05	0.058	11.27	0.076
L	9.14	0.073	10.13	0.049
M	9.11	0.073	6.57	0.049

The test results for Part 2 are given in Tables 9 through 11. As discussed earlier, these include the measured properties of the coated sheets and base papers, and the calculated properties of the coatings.

Table 9. Weight of coated paper and components.

Sample Code	Grammage, g/m^2		
	Coated Sheet	Base Stock	Coating
A	93.0	57.1	35.9
B	93.2	62.2	31.0
C	90.8	54.7	36.1
D	90.0	61.9	28.1
E	90.9	56.1	34.8
H	88.2	59.3	28.9
I	88.2	57.7	30.5
J	89.3	61.4	27.9
K	93.6	55.6	38.0
L	87.3	53.2	34.1
M	90.3	61.4	28.9

Table 10. Alkaline reserve of coated paper and components.

Sample Code	Alkaline Reserve, %				
	Coated Sheet	Base Stock			Coating
		Test 1	Test 2	Average	
A	3.10	0.7	0.8	0.75	6.84
B	5.70	2.9	2.8	2.85	11.42
C	2.20	0.5	0.6	0.55	4.70
D	6.49	4.5	4.5	4.50	10.87
E	5.19	2.3	2.3	2.30	9.85
H	0.10	0.1	0.1	0.10	0.10
I	9.68	4.3	4.3	4.30	19.86
J	0.08	0	0	0.00	0.26
K	11.28	12.2	11.2	11.70	10.67
L	10.18	8.8	8.9	8.85	12.25
M	6.58	4.7	4.5	4.60	10.79

Table 11. pH of coated paper and components.

Sample Code	Hydrogen Ion Concentration (pH) Coated Sheet	Base Stock		
		Test 1	Test 2	Average
A	8.2	7.98	8.23	8.1
B	8.4	8.43	8.54	8.5
C	8.2	8.15	8.09	8.1
D	9.1	9.17	9.16	9.2
E	9.1	9.19	9.20	9.2
H	6.8	7.03	7.04	7.0
I	8.5	8.59	8.56	8.6
J	6.9	6.74	7.01	6.9
K	9.0	9.13	9.21	9.2
L	9.1	9.28	9.29	9.3
M	9.1	9.36	9.31	9.3

THE INSTITUTE OF PAPER CHEMISTRY

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APPROVED BY

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APPENDIX

Sample A-MD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.345	1.570	57.084	688.835
2	5.293	1.559	55.257	685.596
3	5.306	1.547	53.250	664.003
4	5.422	1.565	57.267	729.323
5	5.816	1.642	63.660	739.580
6	5.647	1.593	59.626	683.572
7	5.556	1.616	59.251	677.495
8	5.479	1.461	51.732	699.089
9	5.604	1.625	59.871	673.176
10	5.470	1.564	56.218	735.801
11	5.340	1.486	52.660	679.523
12	5.617	1.693	62.837	692.344
13	5.016	1.347	46.261	705.030
14	4.817	1.302	40.223	665.624
Mean:	5.409	1.541	55.371	694.214
Standard Deviation:	.259	.109	6.341	24.883

Sample A-MD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	6.036	1.760	69.564	687.620
2	5.544	1.486	55.698	690.994
3	5.933	1.696	65.162	670.749
4	5.565	1.625	59.413	665.352
5	6.188	1.853	76.758	757.934
6	5.461	1.380	49.787	696.224
7	5.838	1.695	65.359	699.767
8	5.876	1.836	70.915	642.410
9	5.920	1.640	64.683	740.254
10	5.505	1.482	53.018	727.163
11	5.920	1.702	65.846	728.783
12	5.855	1.643	64.105	679.654
13	5.742	1.560	59.122	714.612
14	5.803	1.639	62.865	680.872
Mean:	5.799	1.643	63.021	698.742
Standard Deviation:	.213	.133	7.194	31.787

Sample A-MD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.950	1.714	67.509	748.757
2	6.300	1.694	69.587	729.458
3	5.634	1.425	51.935	706.648
4	6.119	1.703	67.347	683.570
5	5.954	1.631	63.544	732.562
6	5.920	1.630	62.065	681.544
7	5.474	1.489	52.571	678.578
8	5.751	1.498	57.632	757.394
9	5.712	1.514	58.720	746.058
10	5.682	1.587	61.468	750.376
11	5.963	1.608	63.403	699.091
12	5.959	1.557	60.044	709.214
13	5.885	1.660	64.125	676.821
14	5.725	1.501	57.199	702.335
Mean:	5.859	1.586	61.182	714.458
Standard Deviation:	.212	.091	5.326	29.187

Sample A-MD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.673	1.495	56.269	736.881
2	5.980	1.643	66.342	760.094
3	5.989	1.561	61.642	737.420
4	5.595	1.563	59.661	682.357
5	5.202	1.248	42.235	709.351
6	5.833	1.431	54.917	730.404
7	6.015	1.559	61.376	738.905
8	6.240	1.699	69.150	758.474
9	6.015	1.640	65.158	691.666
10	5.440	1.334	47.712	715.287
11	5.876	1.495	58.775	743.898
12	6.084	1.635	66.382	763.872
13	6.019	1.637	66.366	707.189
14	5.734	1.493	57.695	701.791
Mean:	5.835	1.531	59.548	726.971
Standard Deviation:	.280	.127	7.579	26.030

Sample B-MD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	6.119	1.692	67.936	693.693
2	5.613	1.477	55.806	687.754
3	6.240	1.707	70.076	703.140
4	5.578	1.396	51.208	699.091
5	5.678	1.529	57.422	680.195
6	5.790	1.559	59.827	686.133
7	5.777	1.608	59.937	671.019
8	5.556	1.409	51.807	687.754
9	6.158	1.597	63.110	712.583
10	5.591	1.305	46.329	730.583
Excluded	.004	.011	.000	.000
12	5.686	1.459	53.654	699.090
13	5.799	1.492	55.238	703.105
14	5.379	1.397	47.777	678.037
15	5.902	1.554	59.186	695.714
Mean:	5.776	1.513	57.094	694.849
Standard Deviation:	.251	.116	6.931	15.212

Sample B-MD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	6.235	1.565	63.637	748.481
2	5.983	1.493	58.907	740.367
3	5.260	1.327	46.313	666.937
4	5.840	1.490	56.812	695.066
5	5.567	1.332	47.386	699.395
6	6.009	1.604	62.551	682.220
7	6.113	1.556	63.997	710.617
8	6.113	1.555	62.312	691.007
9	5.602	1.339	48.158	700.478
10	6.083	1.490	59.795	736.310
11	5.758	1.499	55.925	735.094
12	5.970	1.419	54.227	724.272
13	6.196	1.561	65.270	735.634
14	6.027	1.559	62.835	697.771
Mean:	5.911	1.485	57.723	711.689
Standard Deviation:	.277	.094	6.518	24.975

Sample B-MD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	6.001	1.476	56.970	712.373
2	5.069	1.136	36.756	707.236
3	5.849	1.357	53.023	734.012
4	5.832	1.423	54.531	722.653
5	5.988	1.497	60.759	751.862
6	5.910	1.418	54.553	728.197
7	5.693	1.420	52.986	690.735
8	6.009	1.487	57.105	713.455
9	5.858	1.407	53.002	719.407
10	5.641	1.351	51.123	720.759
11	6.087	1.496	58.652	743.748
12	5.182	1.274	44.105	696.689
13	6.360	1.631	68.190	702.500
14	5.944	1.536	59.674	686.948
Mean:	5.816	1.422	54.388	716.470
Standard Deviation:	.340	.120	7.465	19.092

Sample B-MD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.927	1.481	56.542	756.189
2	6.018	1.479	56.932	716.702
3	5.355	1.292	44.059	696.057
4	5.745	1.491	57.366	722.788
5	5.949	1.495	58.057	733.471
6	5.468	1.337	47.309	681.543
7	5.901	1.398	52.658	722.653
8	6.295	1.557	63.541	727.521
9	5.827	1.476	55.371	718.055
10	5.598	1.415	50.464	721.571
11	5.918	1.499	59.776	704.532
12	6.083	1.563	62.883	761.057
13	5.806	1.327	49.915	730.765
14	5.091	1.148	37.502	696.846
Mean:	5.784	1.426	53.741	720.696
Standard Deviation:	.315	.115	7.306	21.842

Sample C-MD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.738	1.640	62.576	673.720
2	6.201	1.635	68.189	748.352
3	5.889	1.567	61.587	710.968
4	6.171	1.626	67.109	729.320
5	6.331	1.779	76.188	702.466
6	5.851	1.614	61.363	699.092
7	6.222	1.784	72.214	689.642
8	6.097	1.625	64.491	708.538
9	5.544	1.493	54.101	734.182
10	5.972	1.624	63.302	697.739
11	5.738	1.490	55.931	713.668
12	5.838	1.494	59.581	779.528
13	5.695	1.389	51.374	727.160
14	6.240	1.639	69.476	756.450
Mean:	5.966	1.600	63.392	719.345
Standard Deviation:	.245	.108	6.937	28.509

Sample C-MD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.905	1.494	56.457	703.181
2	6.330	1.629	67.979	713.319
3	6.100	1.560	61.291	770.117
4	6.135	1.568	64.861	762.680
5	5.957	1.494	57.873	763.221
6	6.343	1.573	67.155	793.782
7	6.425	1.771	73.444	693.035
8	6.074	1.553	62.416	703.854
9	5.845	1.421	55.100	719.406
10	5.624	1.333	49.406	755.648
11	6.100	1.540	60.009	716.145
12	6.217	1.554	62.994	720.758
13	6.066	1.625	63.224	678.838
14	5.905	1.481	56.225	700.865
Mean:	6.073	1.543	61.317	728.203
Standard Deviation:	.217	.102	6.136	34.379

Sample C-MD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.992	1.563	62.923	737.257
2	6.278	1.628	65.670	719.405
3	5.875	1.497	56.287	719.413
4	5.884	1.560	61.040	700.473
5	5.897	1.535	59.555	707.503
6	5.758	1.423	54.990	742.125
7	5.256	1.159	39.546	738.880
8	5.468	1.302	46.162	723.998
9	5.650	1.388	50.813	716.701
10	6.209	1.627	66.218	745.100
11	5.936	1.423	54.927	755.107
12	5.633	1.386	50.111	710.748
13	5.949	1.509	60.510	762.139
14	5.646	1.392	50.377	708.046
Mean:	5.817	1.457	55.652	727.635
Standard Deviation:	.274	.130	7.674	19.134

Sample C-MD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.875	1.489	57.691	720.488
2	5.529	1.393	50.395	698.851
3	5.611	1.330	47.333	726.435
4	5.845	1.629	61.611	674.104
5	5.594	1.398	49.958	707.504
6	5.741	1.423	54.994	729.684
7	5.576	1.417	51.116	709.129
8	5.875	1.543	58.449	722.112
9	5.767	1.417	53.517	726.438
10	5.806	1.392	52.122	741.042
11	5.923	1.490	58.221	747.805
12	5.646	1.329	50.337	731.304
13	5.498	1.331	47.340	729.143
14	5.732	1.491	55.213	711.834
Mean:	5.716	1.434	53.450	719.705
Standard Deviation:	.140	.087	4.394	18.610

Sample D-MD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.422	1.467	53.137	720.685
2	5.332	1.471	52.510	713.669
3	5.016	1.403	47.565	703.103
4	5.375	1.563	56.735	727.703
5	5.582	1.688	63.951	703.949
6	5.271	1.403	50.595	741.739
7	5.098	1.308	45.023	722.801
8	5.306	1.512	53.575	700.168
9	5.422	1.472	53.387	722.847
10	5.561	1.483	56.267	747.677
11	5.505	1.474	54.295	732.564
12	5.634	1.633	62.718	756.315
13	5.656	1.579	61.646	729.865
14	5.172	1.404	49.833	715.830
Mean:	5.382	1.490	54.374	724.208
Standard Deviation:	.198	.100	5.538	16.720

Sample D-MD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.442	1.559	57.153	728.062
2	5.312	1.392	50.393	738.338
3	5.199	1.494	53.764	703.181
4	5.334	1.450	52.618	726.985
5	5.087	1.311	44.958	735.473
6	5.108	1.320	46.227	735.634
7	5.234	1.310	45.941	757.271
8	5.221	1.374	47.702	740.299
9	5.386	1.405	51.146	748.077
10	5.433	1.463	52.861	741.045
11	5.468	1.514	55.259	729.681
12	5.243	1.498	52.657	709.668
13	5.117	1.356	47.146	726.435
14	5.295	1.551	56.494	704.801
Mean:	5.277	1.429	51.023	730.354
Standard Deviation:	.126	.088	4.054	15.741

Sample D-MD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	4.939	1.155	38.357	785.037
2	5.039	1.226	40.310	778.724
3	5.394	1.457	53.148	760.029
4	5.243	1.412	50.430	762.093
5	5.230	1.298	45.740	780.226
6	5.048	1.313	43.944	744.883
7	5.494	1.401	51.586	780.527
8	4.983	1.214	40.735	764.852
9	5.451	1.402	52.414	783.663
10	5.217	1.316	46.668	780.619
11	5.329	1.493	54.485	748.615
12	5.191	1.311	45.571	767.372
13	5.000	1.307	43.520	757.960
14	5.251	1.293	47.395	780.451
Mean:	5.201	1.328	46.736	769.647
Standard Deviation:	.178	.095	5.107	13.454

Sample D-MD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	4.827	1.236	39.719	765.475
2	5.230	1.479	52.142	767.831
3	5.260	1.393	50.014	776.781
4	4.589	1.049	31.709	790.717
5	5.152	1.411	49.657	761.629
6	4.974	1.253	42.544	777.007
7	5.217	1.305	45.183	786.645
8	5.355	1.493	54.098	771.269
9	5.074	1.303	44.834	773.340
10	4.961	1.403	46.904	736.619
11	5.191	1.408	50.223	766.680
12	5.429	1.400	50.701	777.238
13	5.381	1.521	55.130	754.025
14	5.230	1.316	45.661	788.251
Mean:	5.134	1.355	47.037	770.965
Standard Deviation:	.231	.123	6.199	14.311

Sample E-MD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	6.728	1.629	73.084	842.689
2	6.335	1.629	68.880	812.998
3	6.140	1.402	56.768	868.601
4	6.845	1.777	82.738	848.087
5	6.512	1.697	73.628	803.818
6	6.650	1.619	70.585	830.273
7	6.452	1.704	72.769	797.881
8	6.841	1.759	82.807	803.686
9	6.538	1.770	77.234	788.163
10	6.473	1.560	67.732	839.990
11	6.413	1.555	67.893	821.631
12	6.395	1.782	76.113	770.349
13	6.028	1.493	61.322	803.821
14	6.711	1.631	73.535	829.733
Mean:	6.504	1.643	71.792	818.694
Standard Deviation:	.241	.114	7.208	26.387

Sample E-MD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	7.074	1.639	77.352	891.145
2	6.468	1.559	67.926	834.080
3	6.949	1.627	74.805	883.032
4	6.333	1.402	57.673	853.011
5	6.520	1.644	72.582	799.461
6	6.715	1.505	68.864	860.584
7	6.511	1.618	69.071	830.293
8	6.702	1.558	68.922	847.873
9	6.537	1.637	71.488	815.418
10	6.624	1.636	71.017	817.854
11	6.515	1.403	59.086	851.392
12	6.424	1.563	65.858	814.069
13	6.507	1.625	70.483	806.494
14	6.953	1.672	75.485	821.635
Mean:	6.631	1.578	69.329	837.596
Standard Deviation:	.221	.087	5.595	27.971

Sample E-MD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	6.353	1.559	66.397	840.198
2	6.570	1.492	64.712	857.528
3	6.544	1.656	72.921	840.735
4	6.470	1.494	65.586	860.782
5	6.513	1.634	69.894	836.948
6	6.461	1.475	64.274	846.152
7	6.366	1.549	65.228	827.192
8	6.579	1.561	69.734	853.199
9	6.370	1.562	67.165	845.614
10	6.067	1.300	52.742	878.137
11	5.802	1.238	47.156	870.091
12	6.535	1.500	67.253	858.070
13	6.453	1.629	70.059	822.859
14	6.648	1.617	70.785	844.527
Mean:	6.409	1.519	65.279	848.716
Standard Deviation:	.225	.121	7.063	15.426

Sample E-MD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	6.274	1.492	65.064	875.406
2	6.821	1.574	73.678	882.990
3	6.240	1.462	60.602	864.575
4	6.791	1.561	71.279	921.993
5	6.687	1.673	74.759	850.486
6	6.743	1.632	74.207	900.325
7	6.509	1.563	68.753	854.823
8	6.691	1.541	68.134	873.779
9	6.183	1.501	63.046	850.487
10	6.891	1.749	80.450	846.149
11	6.587	1.563	68.177	893.825
12	5.623	1.046	38.596	934.003
13	6.626	1.676	73.453	839.110
14	6.496	1.496	64.732	884.074
Mean:	6.511	1.538	67.495	876.573
Standard Deviation:	.337	.163	9.892	28.604

Sample F-MD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.937	1.522	59.654	757.391
2	5.967	1.424	56.801	776.282
3	5.773	1.394	52.382	748.755
4	5.479	1.352	48.744	734.254
5	6.058	1.482	59.540	775.212
6	6.093	1.530	61.618	758.472
7	6.084	1.472	59.191	774.671
8	5.768	1.252	47.650	786.008
9	6.110	1.418	57.650	797.884
10	5.729	1.404	52.774	756.317
11	5.656	1.319	51.213	762.794
12	5.332	1.348	48.617	727.702
13	5.738	1.314	51.290	779.601
14	6.015	1.414	57.030	787.628
Mean:	5.838	1.403	54.582	765.927
Standard Deviation:	.241	.081	4.718	20.272

Sample F-MD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.962	1.401	55.543	762.733
2	5.771	1.179	44.606	805.739
3	6.049	1.453	58.025	770.311
4	5.737	1.163	43.132	805.971
5	6.023	1.411	56.539	771.668
6	5.902	1.208	46.253	806.704
7	5.962	1.292	50.106	796.316
8	6.045	1.396	55.730	777.353
9	6.379	1.476	61.354	800.652
10	6.088	1.332	52.833	799.473
11	6.023	1.330	52.100	781.693
12	6.327	1.403	58.134	807.695
13	5.893	1.234	47.428	801.196
14	5.689	1.312	50.751	751.352
Mean:	5.989	1.328	52.324	788.490
Standard Deviation:	.197	.102	5.548	18.854

Sample F-MD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.155	1.123	36.880	748.920
2	5.398	1.071	37.652	796.323
3	5.207	1.121	36.949	762.916
4	5.112	1.038	33.615	768.158
5	5.676	1.221	46.250	771.671
6	5.776	1.308	48.602	777.358
7	5.555	1.231	43.662	771.037
8	5.390	1.154	40.109	777.360
9	5.307	1.217	41.558	751.452
10	5.481	1.229	44.720	767.594
11	5.897	1.273	48.445	803.902
12	5.238	1.195	40.553	761.559
13	5.589	1.269	45.712	780.518
14	5.259	1.220	41.767	744.382
Mean:	5.431	1.191	41.891	770.225
Standard Deviation:	.240	.079	4.589	16.732

Sample F-MD 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.077	.974	30.375	783.439
2	4.821	.818	25.004	817.430
3	5.203	1.040	34.772	788.192
4	5.333	.984	34.345	822.047
5	5.246	1.009	33.086	790.953
6	4.994	.989	31.750	756.253
7	5.493	1.044	37.218	816.642
8	5.437	1.113	39.189	796.320
9	5.667	1.140	40.861	804.541
10	5.237	1.000	32.464	796.932
11	5.250	1.077	36.972	772.931
12	5.684	1.132	40.893	822.055
13	5.289	1.037	36.709	804.989
14	5.524	1.155	41.832	788.735
Mean:	5.304	1.037	35.391	797.247
Standard Deviation:	.245	.088	4.685	19.184

Sample G-MD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	4.825	1.631	54.478	610.445
2	4.742	1.646	54.486	605.577
3	4.994	1.716	58.543	622.354
4	4.764	1.696	54.886	603.408
5	5.150	1.695	59.708	643.997
6	4.751	1.829	59.219	582.845
7	4.816	1.576	50.947	622.893
8	5.020	1.703	57.892	633.716
9	5.210	1.632	57.752	662.941
10	4.738	1.721	55.036	589.879
11	4.712	1.483	47.603	620.730
12	4.989	1.722	58.768	629.928
13	5.020	1.633	55.803	629.386
14	4.539	1.482	45.761	605.576
Mean:	4.876	1.655	55.063	618.834
Standard Deviation:	.190	.094	4.299	21.232

Sample G-MD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.194	1.630	56.473	634.884
2	5.099	1.777	61.839	608.342
3	5.056	1.570	53.481	631.637
4	5.021	1.654	57.071	619.176
5	5.394	1.700	62.604	651.678
6	4.843	1.598	52.736	606.717
7	4.930	1.501	49.968	627.846
8	5.190	1.680	59.533	644.634
9	5.355	1.634	58.322	658.720
10	4.856	1.636	54.304	606.175
11	4.843	1.405	45.526	634.887
12	5.129	1.636	56.634	634.345
13	5.212	1.472	51.154	670.638
14	4.873	1.620	53.213	606.713
Mean:	5.071	1.608	55.204	631.171
Standard Deviation:	.186	.096	4.688	20.481

Sample G-MD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	4.873	1.419	47.216	621.344
2	4.869	1.637	53.692	606.717
3	5.138	1.626	56.011	626.217
4	5.129	1.783	63.236	608.339
5	5.160	1.540	54.525	637.592
6	4.899	1.497	49.308	618.094
7	5.095	1.572	52.723	625.679
8	4.990	1.467	48.256	632.717
9	4.860	1.648	54.138	590.468
10	5.325	1.694	60.466	632.717
11	5.242	1.773	63.654	610.778
12	5.151	1.649	57.832	630.013
13	4.726	1.486	46.664	604.011
14	4.665	1.408	44.556	604.008
Mean:	5.009	1.586	53.734	617.764
Standard Deviation:	.197	.121	6.102	13.924

Sample G-MD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	4.873	1.505	49.897	612.135
2	5.402	1.709	62.337	647.348
3	5.216	1.577	56.697	653.306
4	4.821	1.556	50.891	606.715
5	4.821	1.457	47.763	611.592
6	5.146	1.695	58.602	611.048
7	4.686	1.496	47.294	599.677
8	5.185	1.634	57.359	633.260
9	5.081	1.699	58.186	615.384
10	5.289	1.636	58.609	644.092
11	4.743	1.376	43.696	625.676
12	5.151	1.563	54.544	637.052
13	4.847	1.641	54.115	596.424
14	4.899	1.393	46.716	641.927
Mean:	5.011	1.567	53.336	623.974
Standard Deviation:	.224	.110	5.628	18.761

Sample H-MD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	6.546	1.983	85.967	764.410
2	6.684	1.963	86.250	715.705
3	6.793	1.848	83.209	817.175
4	6.455	1.771	76.639	735.999
5	7.001	1.997	95.976	790.793
6	6.463	1.760	75.037	738.702
7	6.585	1.793	80.492	810.410
8	6.515	1.700	72.825	805.269
9	6.593	1.920	85.769	717.732
10	6.801	1.913	85.808	732.615
11	6.554	1.840	81.017	731.940
12	6.550	1.914	83.109	777.940
13	6.858	1.773	82.292	777.263
14	6.251	1.639	68.843	762.381
Mean:	6.618	1.844	81.659	762.738
Standard Deviation:	.193	.109	6.775	34.711

Sample H-MD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	6.466	1.716	75.058	775.731
2	7.108	1.846	86.810	813.922
3	6.544	1.709	74.021	768.553
4	6.418	1.554	66.034	751.625
5	6.713	1.626	72.101	758.396
6	6.609	1.772	78.871	729.957
7	7.104	1.844	85.532	803.765
8	6.683	1.784	81.193	736.728
9	6.713	1.790	81.171	726.568
10	7.164	1.842	87.510	765.843
11	6.223	1.501	62.609	780.065
12	6.700	1.776	79.565	762.459
13	6.739	1.845	83.335	751.625
14	6.900	1.773	81.509	766.522
Mean:	6.720	1.741	78.237	763.697
Standard Deviation:	.274	.110	7.481	25.027

Sample H-MD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	6.114	1.399	56.883	837.490
2	6.171	1.415	58.805	851.027
3	6.032	1.567	65.372	791.983
4	6.349	1.565	66.602	855.904
5	6.631	1.707	76.216	828.819
6	6.461	1.549	66.361	839.651
7	6.492	1.562	68.036	842.362
8	6.292	1.491	62.407	826.652
9	6.349	1.558	64.957	812.568
10	6.214	1.405	57.162	845.501
11	6.067	1.493	60.725	840.737
12	6.197	1.493	62.650	849.946
13	6.214	1.536	63.668	807.687
14	5.863	1.315	49.944	827.343
Mean:	6.246	1.504	62.842	832.690
Standard Deviation:	.202	.097	6.196	18.259

Sample H-MD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch °(%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	6.036	1.313	53.784	860.439
2	6.066	1.337	53.708	864.572
3	6.292	1.404	59.109	872.156
4	5.641	1.184	45.954	853.194
5	6.274	1.429	61.274	841.283
6	6.261	1.336	55.228	891.658
7	6.027	1.368	55.313	834.238
8	5.923	1.180	47.296	890.312
9	6.127	1.391	56.076	861.409
10	6.361	1.487	63.445	847.236
11	6.153	1.313	52.622	874.228
12	5.584	1.154	43.110	860.894
Excluded	.004	.011	.000	.000
14	6.162	1.497	61.574	822.322
15	6.218	1.380	55.738	859.523
Mean:	6.080	1.341	54.588	859.533
Standard Deviation:	.231	.107	5.959	19.484

Sample I-MD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.501	1.553	56.462	655.499
2	4.994	1.484	47.428	620.322
3	5.657	1.712	64.511	698.116
4	5.440	1.651	59.725	665.646
5	5.527	1.702	61.519	665.105
6	5.098	1.427	48.149	708.940
7	5.401	1.564	55.041	698.658
8	5.232	1.642	56.805	647.381
9	5.397	1.435	52.042	724.093
10	5.670	1.713	65.079	705.151
11	5.761	1.695	63.377	647.380
12	4.989	1.415	46.245	672.681
13	5.341	1.498	52.223	695.952
14	5.310	1.651	56.918	622.351
Mean:	5.380	1.582	56.109	673.377
Standard Deviation:	.241	.113	6.302	32.612

Sample I-MD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.550	1.558	56.997	688.651
2	5.233	1.489	50.735	661.430
3	5.368	1.420	50.473	684.588
4	5.572	1.572	59.370	699.485
5	5.199	1.488	50.255	637.865
6	5.602	1.629	60.191	681.880
7	5.546	1.502	56.263	693.391
8	5.329	1.476	50.606	670.368
9	5.489	1.426	51.415	716.685
10	5.407	1.560	55.236	635.424
11	5.815	1.489	56.716	722.508
12	5.672	1.556	59.271	700.162
13	5.476	1.555	56.709	667.660
14	5.155	1.466	49.263	637.052
Mean:	5.458	1.513	54.536	678.368
Standard Deviation:	.188	.060	3.913	28.253

Sample I-MD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.407	1.563	56.800	688.517
Excluded	.000	.011	.000	-11.375
3	5.715	1.459	56.499	734.559
4	5.259	1.422	48.818	686.891
5	5.793	1.606	60.232	697.182
6	5.463	1.481	52.410	708.559
7	5.741	1.515	57.003	724.810
8	5.312	1.392	47.316	694.474
9	5.524	1.554	56.177	697.184
10	5.346	1.554	53.799	680.933
11	5.390	1.420	50.758	710.726
12	5.568	1.490	55.664	713.976
13	5.797	1.625	62.060	740.114
14	5.060	1.322	44.424	703.243
15	5.646	1.473	53.634	735.101
Mean:	5.502	1.491	53.971	708.305
Standard Deviation:	.222	.085	4.890	19.202

Sample I-MD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.506	1.619	58.560	693.787
2	5.048	1.409	46.948	710.264
3	5.297	1.420	50.734	765.821
4	5.502	1.415	51.301	750.081
5	5.231	1.488	50.576	683.031
6	5.471	1.478	53.107	714.618
7	5.384	1.504	55.058	737.498
8	5.794	1.484	57.535	793.055
9	5.192	1.481	50.799	718.434
10	5.331	1.529	54.260	697.733
11	5.593	1.693	62.045	683.027
12	5.733	1.504	56.046	747.845
13	5.672	1.624	60.709	743.489
14	5.358	1.408	49.264	752.204
Mean:	5.436	1.504	54.067	727.920
Standard Deviation:	.215	.087	4.482	33.023

Sample J-MD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	6.377	1.909	81.269	748.851
2	6.372	1.706	71.438	752.233
3	6.355	1.912	80.824	763.057
4	6.524	1.862	81.319	811.763
5	6.442	1.780	76.067	799.857
6	6.056	1.799	75.301	762.516
7	6.307	1.771	74.047	740.057
8	6.251	1.771	75.751	727.880
9	6.541	1.853	81.463	746.147
10	6.351	1.776	75.196	774.557
11	6.242	1.782	73.471	794.987
12	6.619	1.915	84.447	790.793
13	6.207	1.565	64.950	781.460
14	6.602	1.865	84.256	802.022
Mean:	6.375	1.805	77.129	771.156
Standard Deviation:	.160	.094	5.443	26.250

Sample J-MD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	6.523	1.812	77.561	740.767
2	6.514	1.768	76.026	802.042
3	6.200	1.683	68.508	741.447
4	6.392	1.906	82.422	759.149
5	6.640	1.820	79.127	763.461
6	6.597	1.835	81.459	791.830
7	6.156	1.694	69.838	719.659
8	6.226	1.771	76.069	799.319
9	6.619	1.836	81.453	774.808
10	6.584	1.837	80.863	733.275
11	6.693	1.904	84.312	772.085
12	6.549	1.824	80.928	740.087
13	6.178	1.688	69.537	776.851
14	6.461	1.704	74.333	834.723
Mean:	6.452	1.792	77.317	767.822
Standard Deviation:	.188	.076	5.147	31.826

Sample J-MD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.593	1.252	45.475	838.815
2	5.982	1.633	65.834	769.632
3	5.820	1.463	55.845	808.310
4	6.317	1.767	75.780	780.255
5	5.855	1.490	58.120	803.950
6	6.413	1.679	72.022	797.955
7	6.379	1.753	76.355	784.883
8	5.824	1.476	56.339	788.699
9	6.226	1.718	71.085	783.248
10	6.475	1.779	79.402	776.169
11	6.099	1.624	67.665	781.615
12	6.392	1.685	72.470	818.383
13	6.335	1.692	71.109	806.673
14	6.256	1.632	69.492	781.612
Mean:	6.140	1.617	66.928	794.300
Standard Deviation:	.278	.148	9.589	19.046

Sample J-MD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	6.121	1.537	62.301	805.922
2	6.373	1.639	71.213	815.680
3	5.973	1.509	59.664	810.804
4	6.177	1.534	64.972	829.771
5	6.069	1.558	62.177	772.864
6	6.095	1.656	70.045	785.328
7	6.624	1.805	80.157	795.628
8	6.394	1.673	71.558	815.678
9	6.151	1.621	68.626	789.663
10	6.155	1.625	68.658	801.045
11	6.472	1.665	71.081	762.835
12	6.064	1.489	58.961	813.511
13	5.925	1.410	54.954	795.627
14	5.873	1.482	57.287	792.378
Mean:	6.176	1.586	65.832	799.053
Standard Deviation:	.216	.102	6.968	18.053

Sample K-MD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	3.927	1.628	42.736	487.058
2	3.758	1.564	39.557	500.587
3	4.036	1.718	46.348	531.434
4	3.910	1.630	42.725	502.752
5	3.884	1.767	45.648	498.423
6	4.356	1.764	50.730	528.322
7	4.200	1.855	52.050	521.152
8	4.304	1.866	55.537	513.034
9	3.836	1.646	43.439	491.387
10	3.897	1.571	42.019	496.258
11	4.079	1.685	45.032	476.233
12	3.854	1.641	41.992	514.117
13	4.057	1.842	50.253	492.470
14	3.767	1.624	41.338	482.323
Mean:	3.991	1.700	45.672	502.539
Standard Deviation:	.190	.103	4.729	16.909

Sample K-MD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	4.020	1.611	43.920	478.977
2	3.963	1.644	42.850	451.197
3	4.046	1.780	47.625	493.880
4	3.998	1.642	44.339	496.589
5	4.245	1.778	50.537	502.009
6	3.872	1.566	38.950	460.095
7	3.954	1.656	43.748	476.401
8	3.829	1.775	45.548	472.200
9	4.202	1.773	48.456	466.645
10	4.111	1.779	49.110	449.166
11	4.241	1.767	49.884	457.296
12	3.863	1.792	46.824	423.422
13	3.803	1.545	38.000	455.262
14	3.894	1.602	40.352	462.849
Excluded	-.300	.011	-.051	-1310.781
Mean:	4.003	1.693	45.010	467.570
Standard Deviation:	.150	.092	4.008	21.198

Sample K-MD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	4.063	1.443	38.085	513.255
2	4.028	1.711	45.962	474.231
3	3.972	1.704	45.296	460.004
4	4.150	1.630	44.640	539.812
5	3.868	1.783	45.679	447.811
6	3.881	1.681	43.107	457.296
7	4.015	1.498	40.713	559.866
8	3.434	1.274	29.804	499.410
9	4.020	1.651	45.943	534.393
10	4.198	1.672	47.487	495.909
11	4.076	1.629	43.575	503.364
12	3.972	1.702	44.764	462.716
13	3.646	1.506	36.979	506.538
14	3.885	1.702	44.582	450.927
Mean:	3.943	1.613	42.615	493.252
Standard Deviation:	.200	.136	4.774	35.702

Sample K-MD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	3.746	1.482	36.351	486.427
2	3.842	1.557	39.779	474.232
3	3.876	1.482	37.606	510.545
4	4.306	1.776	51.272	532.496
5	3.985	1.711	45.926	469.895
6	4.089	1.499	41.305	563.118
7	4.059	1.575	43.136	488.864
8	4.050	1.643	45.987	540.355
9	3.868	1.389	36.170	504.040
10	3.846	1.468	36.511	488.865
11	4.054	1.563	42.712	543.606
12	4.119	1.647	44.822	530.599
13	4.232	1.770	49.724	496.590
14	4.250	1.757	51.444	498.621
Mean:	4.023	1.594	43.053	509.161
Standard Deviation:	.171	.125	5.414	28.386

Sample A-CD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
Excluded	.012	.011	.003	45.847
Excluded	.016	.011	.003	53.425
3	2.882	3.977	85.286	346.691
4	2.797	3.921	82.187	350.210
5	2.848	4.070	87.415	392.105
6	2.751	3.708	77.400	373.701
7	2.860	3.983	85.249	318.545
8	2.723	3.659	76.669	387.558
9	2.882	3.939	86.334	402.498
10	2.846	4.000	85.675	388.641
11	2.688	3.351	67.398	389.074
12	2.966	4.002	90.291	383.499
13	2.822	3.781	80.821	403.580
14	2.891	3.930	86.065	409.210
15	2.763	3.516	72.566	328.884
16	2.849	4.190	89.500	312.050
Mean:	2.826	3.859	82.347	370.446
Standard Deviation:	.075	.229	6.656	32.879

Sample A-CD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.878	4.052	88.113	317.354
2	2.842	3.866	82.777	318.706
3	2.658	3.177	64.005	333.033
4	2.861	3.926	84.800	317.085
5	2.767	3.709	77.636	350.984
6	2.736	3.583	75.375	371.960
7	2.691	3.581	73.751	368.933
8	2.750	3.420	70.874	341.685
9	2.807	3.830	80.852	344.658
10	2.740	3.345	68.857	385.368
11	2.724	3.291	68.716	394.451
12	2.688	3.282	66.703	338.873
13	2.738	3.574	75.002	362.445
14	2.850	3.919	84.125	348.389
Excluded	-.297	.023	-.085	-1297.698
Mean:	2.766	3.611	75.828	349.566
Standard Deviation:	.070	.280	7.489	24.591

Sample A-CD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.651	3.057	61.212	351.463
2	2.818	3.427	73.483	394.781
3	2.689	3.130	64.388	350.386
4	2.747	3.417	71.285	341.617
5	2.691	3.072	63.320	385.253
6	2.799	3.705	79.950	358.400
7	2.620	2.914	57.621	379.839
8	2.656	3.015	61.330	383.750
9	2.740	3.351	70.212	340.208
10	2.596	2.771	54.310	404.422
11	2.795	3.516	76.105	416.363
12	2.394	2.858	56.391	391.560
13	2.773	3.291	69.360	400.195
14	2.719	3.568	73.879	390.667
Mean:	2.706	3.221	66.632	377.780
Standard Deviation:	.076	.288	7.941	24.775

Sample A-CD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.873	3.415	74.058	397.164
2	2.681	3.140	63.983	354.287
3	2.909	3.199	67.742	426.471
4	2.615	2.851	56.583	370.527
5	2.687	3.942	85.865	338.260
6	2.714	3.413	70.277	359.050
7	2.635	3.000	60.839	354.286
8	2.502	2.702	52.621	350.217
9	2.712	3.404	70.177	343.024
10	2.856	3.787	82.258	388.285
11	2.799	3.680	78.010	341.074
12	2.717	3.466	71.411	342.375
13	2.748	3.363	71.126	396.947
14	2.804	3.703	78.420	334.579
Excluded	2.505	2.258	41.629	338.260
Mean:	2.739	3.362	70.241	364.039
Standard Deviation:	.109	.357	9.460	27.852

Sample B-CD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.547	2.705	51.089	345.714
2	2.924	3.780	81.487	356.964
3	2.900	3.649	79.116	312.883
4	2.959	3.726	81.092	379.896
5	2.670	3.015	59.002	318.832
6	2.971	3.867	85.443	379.247
7	2.841	3.497	73.525	348.526
8	3.044	3.990	89.900	373.460
9	2.897	3.867	83.377	367.348
10	2.954	3.643	80.422	371.891
11	2.703	3.058	61.032	331.003
12	2.897	3.565	76.593	354.800
13	2.696	3.349	67.285	322.619
14	2.956	4.062	89.270	332.084
Mean:	2.854	3.555	75.617	349.662
Standard Deviation:	.144	.397	11.806	23.123

Sample B-CD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.679	3.060	60.731	312.488
2	2.944	3.692	79.514	306.543
3	2.696	2.844	56.846	354.227
4	2.669	3.260	64.065	301.948
5	2.823	3.498	72.969	360.283
6	2.819	3.418	71.395	357.688
7	2.833	3.969	83.678	294.378
8	2.977	3.502	76.892	364.391
9	2.901	3.424	73.661	354.227
10	2.949	3.628	79.091	329.520
11	2.908	3.618	77.412	310.868
12	2.781	3.500	72.350	363.527
13	2.953	3.652	79.845	366.338
14	2.920	3.766	81.193	336.819
Mean:	2.846	3.486	73.546	336.660
Standard Deviation:	.107	.287	8.003	26.587

Sample B-CD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.586	2.626	50.022	329.815
2	2.905	3.648	79.074	353.636
3	2.653	3.428	72.086	316.442
4	2.820	3.410	72.773	325.105
5	2.571	2.791	54.171	331.548
6	2.741	3.336	69.214	332.413
7	2.853	3.437	73.437	367.052
8	2.704	2.950	60.251	350.387
9	2.768	3.022	62.997	346.923
10	2.900	3.717	81.812	344.540
11	2.859	3.069	65.169	373.776
12	2.749	3.013	62.247	347.356
Mean:	2.776	3.204	66.938	343.250
Standard Deviation:	.112	.341	9.567	16.983

Sample B-CD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.692	3.157	63.616	328.734
2	2.824	3.434	73.406	337.393
3	2.918	3.645	79.193	373.126
4	2.737	3.408	69.642	322.125
5	2.753	3.224	67.005	352.120
6	2.586	2.945	56.278	342.375
7	2.803	3.495	73.504	330.789
8	2.678	3.144	63.566	343.674
9	2.892	3.478	74.825	333.223
10	2.725	2.979	60.614	337.827
11	2.696	2.994	60.589	331.763
12	2.720	3.431	70.116	348.872
13	2.810	3.287	69.870	347.302
14	2.694	2.934	59.970	359.050
Mean:	2.752	3.254	67.443	342.027
Standard Deviation:	.089	.234	6.481	13.466

Sample C-CD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.769	3.351	69.650	389.848
2	2.578	2.994	58.347	393.283
3	2.696	3.211	65.330	333.814
4	2.798	3.701	77.403	321.266
5	2.803	3.505	74.571	357.396
6	2.674	3.206	65.171	367.564
7	2.795	3.446	73.655	387.468
8	2.816	3.702	78.071	365.185
9	2.722	3.352	68.734	380.978
10	2.772	3.260	67.428	348.526
11	2.708	3.138	65.129	385.953
12	2.700	2.922	58.790	381.843
13	2.741	3.421	70.513	339.440
14	2.653	3.144	62.355	335.980
Excluded	.007	.034	.023	19.183
Mean:	2.730	3.311	68.225	363.468
Standard Deviation:	.068	.234	6.248	24.153

Sample C-CD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.802	3.494	73.937	371.393
2	2.859	3.499	75.162	335.444
3	2.764	3.042	62.718	342.590
4	2.838	3.650	78.711	418.937
5	2.648	2.649	53.950	408.464
6	2.875	3.506	77.402	376.591
7	2.715	3.126	63.335	337.177
8	2.889	3.423	75.182	363.814
9	2.830	3.708	79.341	396.297
10	2.854	3.633	79.580	323.210
11	2.750	2.986	61.841	359.916
12	2.845	3.567	76.480	403.011
13	2.821	3.486	74.515	345.407
14	2.960	3.932	87.013	390.017
Mean:	2.818	3.407	72.798	369.448
Standard Deviation:	.078	.339	8.955	30.451

Sample C-CD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.431	2.356	43.029	343.067
2	2.639	2.935	59.407	371.063
3	2.617	3.150	64.792	331.577
4	2.691	3.281	66.893	340.773
5	2.799	3.354	71.184	396.485
6	2.652	3.279	66.174	359.163
7	2.647	3.074	61.600	335.903
8	2.522	2.630	49.768	335.902
9	2.543	2.788	54.009	377.259
10	2.764	3.487	72.992	386.208
11	2.704	3.133	63.859	338.067
12	2.665	3.502	72.415	335.363
13	2.565	3.129	60.658	339.690
14	2.539	2.801	55.508	359.704
Mean:	2.627	3.064	61.592	353.587
Standard Deviation:	.100	.330	8.718	21.465

Sample C-CD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.444	2.487	46.106	378.635
2	2.613	3.119	61.601	335.362
3	2.466	2.581	47.717	345.590
4	2.470	2.427	45.552	366.194
5	2.613	2.853	56.939	361.867
6	2.673	3.211	64.932	358.622
7	2.574	2.956	58.806	340.770
8	2.721	3.066	63.263	375.390
9	2.660	3.075	63.005	391.617
10	2.673	3.278	66.018	336.443
11	2.665	3.073	62.659	350.508
12	2.695	2.993	61.955	392.699
13	2.725	3.154	64.590	344.558
14	2.582	2.860	56.454	355.376
Mean:	2.613	2.938	58.543	359.545
Standard Deviation:	.095	.268	7.131	19.182

Sample D-CD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.542	3.801	80.923	390.529
2	2.523	3.564	72.908	408.243
3	2.549	4.129	85.561	373.189
4	2.292	2.609	49.541	382.133
5	2.492	4.079	83.374	357.030
6	2.323	3.198	59.911	373.550
7	2.511	4.570	93.233	373.622
8	2.597	4.637	97.814	391.264
9	2.313	3.048	56.858	369.259
10	2.405	3.291	64.397	431.782
11	2.379	3.213	62.836	433.368
12	2.512	4.727	97.897	420.749
13	2.498	4.081	84.411	400.717
14	2.341	3.359	64.246	369.695
Mean:	2.448	3.736	75.279	391.081
Standard Deviation:	.102	.654	15.852	24.523

Sample D-CD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.370	3.589	71.231	383.683
2	2.310	3.275	62.724	369.803
3	2.401	3.403	67.085	395.045
4	2.431	3.698	73.578	404.566
5	2.535	3.940	83.792	397.567
6	2.448	4.061	83.159	384.317
7	2.466	4.273	87.316	381.792
8	2.366	3.350	65.289	389.363
9	2.479	3.849	79.019	421.547
10	2.392	3.003	59.632	417.130
11	2.595	4.783	102.218	422.179
12	2.578	4.294	93.174	415.122
13	2.734	5.009	113.428	393.240
14	2.422	3.770	76.206	390.625
Excluded	.000	.011	.000	.948
Mean:	2.466	3.878	79.847	397.570
Standard Deviation:	.112	.570	15.423	16.289

Sample D-CD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.297	2.566	48.101	431.826
2	2.608	4.142	89.703	419.023
3	2.505	3.499	72.504	433.539
4	2.453	3.382	70.722	431.014
5	2.357	3.311	64.264	426.869
6	2.479	3.844	78.487	419.022
7	2.453	2.778	55.279	442.194
8	2.574	4.494	95.749	419.653
9	2.600	4.384	97.913	436.693
10	2.379	3.128	60.976	431.823
11	2.466	4.070	82.763	407.033
12	2.522	3.485	71.711	428.669
13	2.569	3.718	78.445	423.259
14	2.349	2.606	49.804	426.417
Mean:	2.472	3.529	72.601	426.931
Standard Deviation:	.099	.623	15.860	8.889

Sample D-CD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
Excluded	2.522	3.559	82.177	3379.259
2	2.478	3.554	73.592	438.842
3	2.265	3.212	61.194	432.873
4	2.335	3.622	69.847	423.374
5	2.409	4.206	83.350	419.213
6	2.430	4.463	89.290	409.083
7	2.378	3.879	75.915	419.761
8	2.583	5.027	106.491	413.512
Excluded	.017	.011	.321	75.990
10	2.417	3.926	78.589	430.162
11	2.356	3.799	75.396	420.207
12	2.448	3.568	72.103	433.778
13	2.456	3.629	73.570	433.328
14	2.448	3.916	79.266	430.160
15	2.356	3.756	73.040	417.948
Mean:	2.412	3.889	77.819	424.788
Standard Deviation:	.078	.462	10.908	9.011

Sample E-CD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.476	3.940	80.252	371.071
2	2.183	3.790	67.941	361.343
3	2.403	3.426	65.856	401.061
4	2.421	3.497	67.817	391.470
5	2.145	3.370	60.569	363.454
6	2.401	3.345	64.070	399.616
7	2.074	3.149	54.221	360.928
8	2.297	2.555	46.806	392.480
9	2.164	4.356	77.692	390.208
10	2.171	3.790	67.559	358.153
11	2.479	3.625	72.684	379.105
12	2.382	2.928	55.621	421.758
13	2.199	4.077	73.793	357.305
14	2.396	3.298	65.363	382.131
Mean:	2.299	3.510	65.732	380.720
Standard Deviation:	.138	.470	9.208	19.650

Sample E-CD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.477	3.268	64.318	385.479
2	2.190	4.127	73.766	352.089
Excluded	.003	.023	.000	13.297
4	2.538	3.933	81.301	402.058
5	2.520	3.294	66.828	389.450
6	2.220	4.424	80.944	357.845
7	2.433	3.338	65.891	377.880
8	2.142	4.200	74.637	340.690
9	2.355	3.019	57.455	413.423
10	2.264	4.704	87.350	347.483
11	2.325	2.147	39.072	415.233
12	2.260	2.364	42.145	388.818
13	2.094	3.669	65.345	351.001
14	2.220	3.690	67.976	360.324
15	2.581	3.743	77.663	379.954
Mean:	2.330	3.566	67.478	375.838
Standard Deviation:	.157	.729	13.947	24.659

Sample E-CD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.209	3.702	66.906	408.272
2	2.246	2.470	44.413	428.495
3	2.135	3.401	60.210	399.424
4	2.437	3.209	64.449	429.759
5	2.258	4.064	76.149	400.145
6	2.426	3.231	63.643	409.535
7	2.218	3.720	67.710	406.465
8	2.411	3.199	61.600	417.481
9	2.109	3.324	57.614	404.661
10	2.352	2.866	55.390	438.606
11	2.322	4.355	83.319	402.492
12	2.492	3.422	68.519	426.219
13	2.216	3.715	67.611	403.215
14	2.350	2.907	55.289	423.440
Mean:	2.299	3.399	63.773	414.158
Standard Deviation:	.118	.492	9.490	12.902

Sample E-CD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.196	4.493	82.555	395.270
2	2.300	2.905	53.905	439.688
3	1.960	2.771	44.480	407.911
4	2.324	2.847	53.611	440.952
5	1.998	2.792	47.175	423.076
6	2.341	3.093	59.529	421.274
7	1.991	2.837	47.175	406.825
8	2.347	2.784	53.362	435.179
9	2.135	3.875	69.206	399.784
10	2.378	3.203	63.152	431.565
11	2.062	3.368	57.338	402.491
12	2.390	3.358	65.168	432.469
13	2.119	3.804	68.568	403.396
14	2.352	3.135	60.228	437.525
Mean:	2.207	3.233	58.961	419.815
Standard Deviation:	.159	.512	10.331	16.609

Sample F-CD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.611	3.286	67.895	334.249
2	2.604	3.701	75.988	323.215
3	2.623	2.914	59.328	356.531
4	2.601	3.289	67.059	349.175
5	2.623	3.652	76.400	330.354
6	2.630	3.301	69.080	339.655
7	2.616	4.078	84.236	317.806
8	2.793	3.844	84.878	337.925
9	2.375	4.298	84.082	295.739
10	2.263	3.709	68.224	292.926
11	2.365	4.288	83.217	297.036
12	2.348	4.224	80.101	297.037
13	2.400	4.493	87.653	299.849
14	2.391	4.080	79.348	305.259
Mean:	2.517	3.797	76.249	319.768
Standard Deviation:	.155	.472	8.589	21.869

Sample F-CD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.595	3.209	65.386	326.110
2	2.384	2.328	42.888	332.224
3	2.660	3.211	66.909	347.346
4	2.514	2.661	52.406	335.428
5	2.498	2.481	47.841	333.695
6	2.561	2.882	57.849	330.877
7	2.516	2.861	56.163	335.533
8	2.500	2.794	54.526	329.578
9	2.516	2.981	58.430	326.110
10	2.646	2.935	60.963	340.197
11	2.484	2.848	54.612	318.527
12	2.585	3.221	65.355	330.877
13	2.540	2.986	59.232	329.794
14	2.535	3.278	65.063	318.310
Mean:	2.538	2.905	57.687	331.043
Standard Deviation:	.070	.281	6.999	7.689

Sample F-CD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.419	2.919	56.044	326.327
2	2.397	2.777	53.094	328.366
3	2.409	2.565	48.981	336.546
4	2.400	3.077	58.766	316.578
5	2.430	2.408	45.669	333.328
6	2.086	2.952	48.964	273.671
7	2.126	3.575	62.060	277.790
8	1.991	2.592	42.050	286.168
9	2.045	3.298	55.001	281.907
10	2.036	2.671	42.880	284.515
11	2.227	4.071	73.950	278.657
12	2.157	3.715	65.371	277.791
13	1.939	2.367	36.666	280.285
14	1.937	2.589	39.576	265.871
Mean:	2.186	2.970	52.077	296.271
Standard Deviation:	.191	.520	10.613	25.527

Sample F-CD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.305	2.438	44.176	332.775
2	2.300	2.531	46.667	321.656
3	2.275	2.130	37.359	329.101
4	2.284	2.394	42.819	321.282
5	2.447	3.051	59.390	323.292
6	2.236	2.364	41.092	319.446
7	2.267	2.627	47.403	311.725
8	2.352	2.868	53.333	317.442
9	2.234	2.511	44.520	311.265
10	2.288	2.566	46.657	312.676
11	2.241	2.342	40.661	310.509
12	2.310	2.939	53.903	311.158
13	2.194	2.203	37.451	317.702
14	2.220	2.415	41.971	312.093
Mean:	2.282	2.527	45.529	318.009
Standard Deviation:	.063	.268	6.370	7.055

Sample G-CD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.526	3.521	70.315	309.893
2	2.491	3.248	62.892	316.171
3	2.614	3.932	80.837	318.337
4	2.416	3.300	63.801	313.790
5	2.522	3.410	67.625	315.086
6	2.609	4.093	84.977	302.529
7	2.709	4.074	87.228	314.872
8	2.461	3.511	69.283	310.109
9	2.550	3.439	68.937	320.070
10	2.548	3.657	74.067	312.274
11	2.716	4.231	92.309	320.719
12	2.512	3.720	74.498	311.408
13	2.442	3.223	61.678	308.159
14	2.567	4.005	81.545	305.993
Mean:	2.549	3.669	74.285	312.815
Standard Deviation:	.090	.342	9.667	5.258

Sample G-CD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.460	3.755	74.297	283.856
2	2.538	4.189	84.726	292.253
3	2.500	3.864	77.859	299.892
4	2.311	3.304	60.816	288.191
5	2.349	3.032	55.750	295.990
6	2.543	4.139	83.802	295.504
7	2.550	3.807	78.663	317.010
8	2.359	3.438	65.628	303.792
9	2.408	3.695	71.140	296.857
10	2.469	3.918	76.632	290.789
11	2.566	4.069	84.074	297.724
12	2.344	3.099	57.161	296.424
13	2.401	3.604	68.814	296.641
14	2.458	4.103	81.373	287.974
Mean:	2.447	3.716	72.910	295.921
Standard Deviation:	.086	.378	9.960	8.018

Sample G-CD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.603	3.727	76.457	294.149
2	2.499	3.333	65.230	304.441
3	2.477	2.890	55.012	308.124
4	2.621	3.743	78.631	314.410
5	2.515	3.301	65.017	296.588
6	2.440	3.082	59.798	295.125
7	2.560	3.432	70.487	309.859
8	2.484	3.064	59.897	303.574
9	2.572	3.569	72.300	309.859
10	2.584	3.622	74.538	300.974
11	2.451	3.148	60.276	296.425
12	2.581	3.717	75.573	306.609
13	2.565	3.359	68.386	309.046
14	2.697	3.807	81.054	310.076
Mean:	2.546	3.414	68.761	304.233
Standard Deviation:	.072	.293	8.084	6.564

Sample G-CD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.581	4.294	88.659	288.191
2	2.432	3.789	74.635	291.657
3	2.378	3.312	62.245	292.957
4	2.367	3.368	62.661	295.775
5	2.470	3.585	70.302	294.041
6	2.411	3.941	75.967	284.507
7	2.315	3.428	63.496	281.906
8	2.511	4.135	82.915	288.731
9	2.308	3.010	55.391	292.959
10	2.435	3.514	68.068	292.740
11	2.341	3.745	69.500	277.139
12	2.435	3.994	77.883	281.960
13	2.463	3.859	75.316	295.341
14	2.413	3.831	73.124	287.540
Mean:	2.419	3.700	71.440	288.960
Standard Deviation:	.075	.351	8.845	5.734

Sample H-CD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.545	4.141	81.637	315.089
2	2.675	4.408	89.929	301.825
3	2.607	4.060	82.254	331.872
4	2.595	4.489	90.050	346.923
5	2.550	4.213	83.202	322.885
6	2.460	3.280	61.184	309.892
7	2.585	4.082	82.297	325.917
8	2.572	3.704	73.437	330.248
9	2.461	3.846	73.681	326.999
10	2.543	3.863	75.359	374.563
11	2.685	4.134	84.596	357.750
12	2.446	3.121	58.062	320.503
13	2.619	4.147	83.666	348.222
14	2.484	4.228	82.361	290.834
Mean:	2.559	3.980	78.694	328.823
Standard Deviation:	.076	.391	9.523	22.325

Sample H-CD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.726	4.132	87.306	346.966
2	2.597	3.845	77.372	330.173
3	2.472	3.285	62.763	364.490
4	2.467	3.004	57.585	349.946
5	2.566	3.762	74.248	312.025
6	2.557	3.719	73.885	343.879
7	2.394	3.011	56.678	375.337
8	2.488	3.209	61.788	339.328
9	2.340	3.078	56.191	307.259
10	2.564	4.475	88.419	287.650
11	2.514	3.363	65.615	314.844
12	2.604	4.267	86.230	297.941
13	2.484	3.426	66.512	352.113
14	2.602	3.987	79.989	335.428
Mean:	2.527	3.612	71.041	332.670
Standard Deviation:	.097	.485	11.595	25.601

Sample H-CD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.291	2.498	45.433	412.568
2	2.371	2.638	50.003	411.559
3	2.322	2.779	51.173	446.190
4	2.511	3.204	63.323	419.094
5	2.324	2.437	44.533	399.929
6	2.446	3.261	62.455	375.338
7	2.586	3.839	78.705	376.994
8	2.414	3.141	60.586	403.720
9	2.298	2.482	44.830	387.196
10	2.310	2.426	44.066	428.855
11	2.338	2.546	46.356	389.567
12	2.279	2.283	40.277	398.521
13	2.380	2.413	44.945	419.646
14	2.548	3.186	64.882	399.424
Mean:	2.387	2.795	52.969	404.900
Standard Deviation:	.100	.455	11.143	19.804

Sample H-CD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.357	2.431	45.149	415.350
2	2.378	2.776	52.787	413.073
3	2.406	2.706	51.016	418.562
4	2.293	2.134	38.411	426.871
5	2.468	2.996	57.795	413.832
6	2.354	2.781	51.917	410.797
7	2.414	2.886	55.232	407.768
8	2.413	2.743	52.250	416.362
9	2.341	2.313	43.047	433.011
10	2.319	2.620	47.807	431.743
11	2.295	2.353	42.644	438.245
12	2.331	2.967	55.113	418.635
13	2.333	2.591	47.440	411.559
14	2.406	2.983	56.660	407.370
Mean:	2.365	2.663	49.805	418.798
Standard Deviation:	.051	.270	5.866	9.833

Sample I-CD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.149	4.137	68.315	277.023
2	2.161	4.297	72.360	280.484
3	1.984	3.338	50.827	278.172
4	2.183	4.065	68.304	292.162
5	2.000	3.849	59.620	308.997
6	2.145	4.212	69.363	298.217
7	2.242	4.626	78.101	264.913
8	2.131	4.643	76.432	310.328
9	2.291	4.484	77.858	296.055
10	2.097	3.917	63.500	347.163
11	2.076	3.483	55.506	289.092
12	2.079	3.998	63.997	273.564
13	2.180	4.335	71.971	271.401
14	1.979	3.070	47.418	324.227
Mean:	2.121	4.032	65.970	293.700
Standard Deviation:	.093	.472	9.729	22.830

Sample I-CD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.172	3.846	65.023	325.027
2	2.004	3.071	48.661	288.101
3	2.146	3.576	59.980	338.383
4	2.118	3.793	62.948	337.923
5	1.983	2.925	45.983	341.531
6	2.200	4.045	68.646	286.456
7	2.156	3.644	61.506	308.776
8	1.918	2.636	39.082	313.470
9	2.163	3.861	65.035	338.475
10	2.080	3.369	55.827	315.309
11	2.061	3.130	50.306	344.910
12	2.271	4.138	72.488	351.804
13	2.349	4.492	80.529	292.958
14	2.096	3.855	62.398	288.652
Mean:	2.123	3.599	59.887	319.412
Standard Deviation:	.113	.516	11.071	23.475

Sample I-CD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.017	3.360	53.668	370.603
2	2.142	3.847	64.577	357.504
3	2.298	4.416	77.486	347.129
4	2.197	3.712	64.474	386.782
5	1.991	3.214	50.339	379.740
6	2.211	4.128	70.691	353.412
7	2.041	3.193	50.665	345.575
8	2.137	3.350	56.515	368.833
9	2.083	3.505	57.860	377.934
10	2.232	3.987	69.553	364.789
11	2.168	3.561	60.173	350.608
12	2.131	3.629	61.557	360.491
13	1.999	3.342	52.706	363.308
14	2.185	3.901	66.766	364.033
Mean:	2.131	3.653	61.217	363.624
Standard Deviation:	.094	.365	8.182	12.395

Sample I-CD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.078	3.736	61.027	348.403
2	2.035	3.165	50.821	387.639
3	2.085	3.957	64.986	361.291
4	2.057	3.173	51.557	386.734
5	1.981	3.203	50.050	371.392
6	2.137	3.986	67.121	367.425
7	2.134	4.244	71.376	354.973
8	2.017	3.157	50.534	379.159
9	2.035	3.324	52.574	333.247
10	2.042	3.343	54.131	384.386
11	1.986	3.259	51.175	365.981
12	2.116	3.673	61.871	356.993
13	2.118	3.821	63.040	343.605
14	2.258	4.488	78.779	387.563
Excluded	-.007	.023	-.002	-30.318
Mean:	2.077	3.609	59.217	366.342
Standard Deviation:	.073	.442	9.091	17.569

Sample J-CD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
Excluded	1.943	1.260	19.194	384.776
2	2.775	3.488	73.051	351.764
3	2.792	3.492	73.946	377.524
4	2.706	3.142	64.778	392.677
5	2.742	3.285	68.078	348.950
6	2.818	3.775	79.865	340.399
7	2.619	3.234	63.914	323.189
8	2.813	3.775	80.465	350.682
9	2.785	3.389	70.834	347.432
10	2.813	3.500	73.371	345.918
11	2.704	3.430	70.161	335.311
12	2.752	3.623	75.184	356.093
13	2.660	3.349	66.904	339.858
14	2.790	3.633	76.487	344.999
Mean:	2.752	3.470	72.080	350.369
Standard Deviation:	.063	.195	5.277	17.788

Sample J-CD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	3.112	3.591	85.668	408.208
2	2.926	2.530	55.642	433.178
3	2.985	2.883	81.265	428.032
4	2.964	3.014	69.624	418.662
5	2.971	3.303	75.534	397.597
6	2.980	3.258	76.388	399.113
7	3.077	3.019	71.320	410.804
8	3.074	2.992	71.846	434.651
9	3.034	3.179	73.628	410.670
10	3.013	3.477	81.909	412.973
11	3.027	3.429	81.497	392.399
12	2.899	2.804	62.437	413.425
13	3.030	3.408	79.705	389.801
14	3.065	3.413	81.560	418.478
Mean:	3.011	3.165	74.859	411.999
Standard Deviation:	.061	.302	8.307	14.077

Sample J-CD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.510	2.643	50.820	355.196
2	2.606	2.859	57.475	400.496
3	2.496	2.481	47.610	419.750
4	2.532	2.855	56.194	379.374
5	2.677	3.391	69.364	385.800
6	2.539	2.708	53.437	401.571
7	2.461	2.638	50.504	414.897
8	2.448	2.676	50.847	411.882
9	2.539	3.076	60.166	386.231
10	2.546	3.126	60.991	383.672
11	2.522	2.636	50.918	380.290
12	2.694	3.326	68.988	382.137
13	2.411	2.552	46.951	386.234
14	2.618	3.324	67.189	375.294
Mean:	2.543	2.878	56.532	390.202
Standard Deviation:	.082	.313	7.752	17.563

Sample J-CD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.631	3.221	66.087	377.914
2	2.627	3.177	65.094	389.890
3	2.529	2.698	52.110	403.332
4	2.586	3.138	63.733	398.305
5	2.613	3.160	63.097	385.228
6	2.517	2.781	53.377	399.308
7	2.506	2.864	55.164	388.004
8	2.496	2.682	51.235	409.118
9	2.498	2.916	56.156	397.655
10	2.475	2.776	52.417	398.303
11	2.467	2.607	49.929	387.742
12	2.549	2.984	58.839	396.201
13	2.568	3.186	62.875	376.085
14	2.553	3.228	64.516	391.905
Mean:	2.544	2.958	58.188	392.785
Standard Deviation:	.055	.225	5.887	9.329

Sample K-CD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.974	5.716	124.323	345.541
2	3.089	5.783	129.756	344.188
3	2.549	4.197	80.202	319.294
4	2.881	5.273	111.337	293.948
5	2.967	5.772	124.714	336.070
6	2.721	5.211	105.574	334.176
7	2.787	5.067	104.241	317.941
8	2.863	5.684	118.105	275.909
9	3.058	5.430	121.432	369.811
10	2.811	5.150	108.380	354.145
11	2.829	5.290	110.637	345.270
12	2.886	5.496	115.620	354.694
13	2.818	5.285	110.306	306.576
14	2.579	4.219	82.718	322.974
Mean:	2.844	5.255	110.525	322.824
Standard Deviation:	.157	.502	14.481	31.444

Sample K-CD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	3.029	5.341	118.851	300.006
2	2.981	5.333	117.509	295.647
3	3.147	5.691	129.829	278.281
4	2.616	4.064	80.068	328.028
5	2.719	4.668	95.400	274.476
6	3.048	5.478	123.135	277.904
7	3.100	5.493	122.752	260.072
8	3.195	5.771	133.819	265.095
9	2.966	5.201	113.352	310.716
10	3.012	5.200	115.558	286.766
11	2.890	5.056	108.087	281.546
12	3.129	5.639	128.930	329.104
13	2.883	4.911	104.400	268.289
14	2.997	5.479	120.616	279.160
Mean:	2.979	5.238	115.165	288.221
Standard Deviation:	.161	.456	14.449	21.845

Sample K-CD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.745	4.504	93.383	306.499
2	2.831	4.753	99.775	289.277
3	2.910	5.144	111.937	284.883
4	3.079	5.317	120.076	296.185
5	2.740	4.639	94.982	292.506
6	2.967	5.473	119.628	287.197
7	2.879	5.032	107.760	285.063
8	2.647	4.473	89.981	300.042
9	2.960	5.191	113.344	303.271
10	2.981	5.495	121.675	333.679
11	2.767	5.287	111.334	280.577
12	2.667	4.781	97.674	311.344
13	2.660	4.679	94.027	290.353
14	2.922	5.510	120.486	284.435
Mean:	2.840	5.020	106.862	296.094
Standard Deviation:	.137	.375	11.564	14.186

Sample K-CD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.997	5.338	118.598	347.941
2	2.497	3.551	68.120	323.991
3	2.879	5.206	112.297	360.857
4	2.857	5.045	107.677	302.822
5	2.619	4.574	91.261	302.894
6	2.498	3.827	73.484	305.906
7	2.881	5.151	110.642	281.833
8	2.624	4.113	82.074	313.011
9	2.776	5.241	110.342	300.849
10	2.724	5.150	106.076	295.465
11	2.855	5.207	110.972	323.184
12	2.591	4.138	82.593	355.422
13	2.598	4.587	91.416	300.526
14	2.728	5.163	106.288	295.198
Mean:	2.723	4.735	97.989	314.993
Standard Deviation:	.156	.602	16.197	24.234

Sample L-CD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
Excluded	1.956	1.805	28.081	310.634
2	2.607	6.725	132.738	350.249
3	2.492	6.071	117.628	346.785
4	2.123	6.787	115.927	316.374
5	2.452	6.430	122.733	381.762
6	2.541	6.941	133.809	334.230
7	2.357	5.644	104.028	327.736
8	2.135	6.592	115.164	358.619
9	2.369	5.544	103.596	303.490
10	2.419	6.084	114.052	313.665
11	2.444	6.065	113.247	292.235
12	2.149	7.143	123.185	290.719
13	2.413	5.793	110.557	329.684
14	2.452	6.451	123.411	363.027
Mean:	2.381	6.329	117.698	331.429
Standard Deviation:	.155	.505	9.369	27.991

Sample L-CD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.027	6.813	109.776	303.385
2	2.008	5.121	82.938	252.840
3	2.227	6.156	107.192	358.224
4	2.153	5.272	89.327	331.853
5	1.984	6.486	103.567	303.048
6	2.118	5.438	91.543	293.247
7	2.310	6.653	118.465	340.454
8	2.285	6.104	107.463	288.646
Excluded	3.224	1.854	214.372	682.109
10	2.213	6.002	104.260	357.693
11	2.219	6.061	104.550	295.847
12	1.769	3.863	57.188	316.385
13	2.065	5.070	85.323	336.139
Mean:	2.115	5.753	96.799	314.813
Standard Deviation:	.154	.836	16.507	31.258

Sample L-CD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	1.960	3.764	60.805	355.694
2	2.255	5.201	94.480	378.722
3	2.109	6.730	115.876	388.357
4	2.127	4.792	83.386	393.410
5	2.449	6.790	127.055	344.704
6	2.385	5.832	109.522	354.995
7	2.146	6.569	114.950	390.703
8	2.036	4.124	68.990	413.262
9	2.293	5.137	95.353	413.621
10	2.236	4.865	89.082	406.006
11	2.154	6.439	112.749	374.174
12	2.311	5.392	99.717	408.573
13	2.172	5.134	91.326	413.078
14	2.231	5.041	90.496	408.029
Mean:	2.205	5.415	96.699	388.809
Standard Deviation:	.132	.945	18.437	23.833

Sample L-CD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	1.988	5.056	84.464	404.418
2	2.311	5.682	106.153	384.280
3	2.411	5.637	107.315	395.649
4	2.300	5.384	98.429	385.289
5	1.825	4.196	66.790	395.431
6	2.239	5.283	95.210	398.283
7	2.378	6.329	118.183	373.415
8	2.227	4.701	84.183	404.058
9	2.236	7.132	127.259	395.037
10	2.177	4.914	87.157	411.458
11	2.638	6.925	138.746	411.036
12	2.396	5.682	107.104	343.322
13	2.108	6.725	116.058	407.667
14	2.215	5.043	90.808	418.497
Mean:	2.246	5.621	101.990	394.846
Standard Deviation:	.196	.873	19.192	19.151

Sample M-CD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.015	4.249	73.019	332.104
2	2.066	5.058	88.359	339.333
3	2.069	4.670	84.872	347.966
4	1.972	3.942	66.473	330.081
5	2.137	5.139	92.721	361.190
6	2.029	5.076	88.030	316.834
7	2.069	5.572	98.118	313.162
8	1.854	2.957	47.572	330.840
9	1.977	4.054	67.913	331.344
10	2.052	5.231	90.973	349.275
11	1.948	3.400	55.268	332.609
12	2.107	4.883	88.500	374.024
13	1.984	4.392	76.802	349.275
14	2.054	5.211	90.120	314.677
Mean:	2.024	4.560	79.196	337.337
Standard Deviation:	.073	.762	15.154	17.576

Sample M-CD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.077	5.278	93.481	346.633
2	1.931	4.233	69.788	339.812
3	1.916	2.718	43.366	358.401
4	1.815	1.992	29.187	363.272
5	2.013	4.129	70.618	348.655
6	2.023	4.350	76.272	344.107
7	2.065	4.413	77.423	346.492
8	2.046	5.183	91.880	337.648
9	1.949	4.019	66.835	338.370
10	2.042	4.540	79.241	348.116
11	1.928	2.408	38.591	375.183
12	2.051	4.376	77.755	354.249
13	1.959	3.637	62.242	353.528
14	2.016	4.378	75.728	348.908
Mean:	1.988	3.975	68.029	350.241
Standard Deviation:	.074	.973	18.975	10.255

Sample M-CD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
Excluded	1.941	2.993	54.660	860.750
2	1.893	3.245	52.456	383.002
3	1.924	3.941	65.082	373.804
4	1.981	4.592	79.200	374.527
5	1.889	3.593	59.108	375.427
6	1.974	4.146	72.166	381.379
7	1.931	3.989	67.946	372.721
8	2.002	3.951	68.669	386.246
9	1.967	3.506	58.919	392.376
10	1.959	4.076	69.137	381.378
11	1.952	4.275	72.684	375.428
12	2.075	4.234	75.574	390.393
13	1.959	4.079	69.146	375.428
14	1.964	3.629	61.818	390.575
Mean:	1.959	3.943	67.070	380.976
Standard Deviation:	.048	.365	7.437	7.050

Sample M-CD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	2.005	3.515	60.175	400.310
2	1.943	3.865	64.198	390.577
3	2.019	3.824	68.021	397.605
4	1.953	3.307	55.755	393.277
5	1.991	3.480	60.263	399.769
6	1.971	2.314	48.368	400.311
7	2.076	3.640	66.024	396.342
8	1.979	3.438	57.806	366.246
9	2.042	4.405	76.877	391.556
10	1.941	3.641	61.772	389.492
11	2.068	4.798	85.621	382.322
12	2.064	4.426	78.200	394.543
13	1.979	4.115	69.710	389.852
Mean:	2.003	3.798	65.599	393.293
Standard Deviation:	.048	.521	10.161	5.519

Sample L-MD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	6.658	1.702	72.507	718.185
2	4.092	1.332	35.479	568.236
3	4.781	1.457	46.925	613.691
4	4.976	1.495	49.616	643.999
5	5.397	1.626	57.341	649.950
6	4.534	1.497	45.913	644.540
7	4.556	1.340	41.539	611.174
8	5.267	1.558	56.735	683.505
9	4.959	1.360	43.837	660.075
10	4.304	1.498	43.422	615.858
11	4.608	1.393	41.589	606.117
12	5.275	1.642	60.000	701.363
13	4.998	1.500	49.213	685.128
14	4.183	1.398	38.602	573.105
Mean:	4.899	1.486	48.765	641.066
Standard Deviation:	.651	.116	9.906	45.750

Sample L-MD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	4.679	1.309	39.654	661.286
2	.004	.011	.000	-1.899
3	4.449	1.484	43.808	595.753
4	4.493	1.238	35.905	649.329
5	4.957	1.390	45.068	688.318
6	5.122	1.404	47.602	670.971
7	4.471	1.455	44.545	612.710
8	4.475	1.168	34.478	676.114
9	4.632	1.238	38.969	695.082
10	5.300	1.529	52.614	668.257
11	4.449	1.492	44.866	587.507
12	4.918	1.476	49.580	633.570
13	5.274	1.623	56.636	650.916
14	5.009	1.374	45.342	660.903
Mean:	4.445	1.300	41.362	603.487
Standard Deviation:	1.316	.392	13.362	177.243

Sample L-MD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	4.341	1.438	43.237	697.438
2	4.923	1.449	48.311	697.525
3	4.862	1.344	44.354	732.101
4	5.318	1.497	52.655	754.258
5	4.423	1.509	45.304	652.552
6	4.198	1.039	28.515	720.018
7	5.044	1.490	50.663	765.441
8	4.636	1.160	34.742	696.810
9	4.510	1.489	45.776	679.267
10	4.762	1.346	43.059	699.914
11	4.432	1.136	33.500	746.762
12	5.044	1.493	50.747	708.908
13	4.059	1.301	37.086	616.959
14	4.979	1.469	49.546	709.338
Mean:	4.681	1.369	43.392	705.521
Standard Deviation:	.367	.156	7.333	39.403

Sample L-MD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	4.892	1.315	42.630	771.419
2	5.135	1.470	49.493	721.775
3	4.163	1.299	37.474	670.251
4	4.940	1.432	47.806	721.984
5	5.096	1.391	48.751	752.109
6	4.866	1.349	44.365	716.599
7	4.185	1.297	37.672	620.980
8	4.697	1.295	40.665	727.158
9	5.174	1.490	52.162	757.146
10	5.279	1.460	50.793	706.293
11	4.124	1.331	36.940	661.512
12	4.593	1.284	40.846	699.224
Excluded	.004	.023	.000	17.071
14	5.435	1.622	61.064	744.681
15	5.292	1.534	55.171	729.504
Mean:	4.848	1.398	46.131	714.331
Standard Deviation:	.439	.106	7.275	40.851

Sample M-MD Unaged

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.306	1.560	56.349	704.610
2	5.401	1.481	54.667	744.657
3	5.037	1.254	41.779	744.787
4	5.236	1.561	55.703	716.516
5	5.393	1.631	60.457	707.316
6	5.557	1.471	54.280	750.614
7	5.327	1.460	52.177	719.760
8	5.367	1.499	54.596	763.057
9	5.184	1.492	52.018	721.928
10	5.458	1.490	55.020	745.740
11	5.284	1.521	53.889	712.726
12	5.310	1.536	54.571	711.107
13	5.479	1.574	57.872	719.760
14	5.661	1.603	61.987	731.126
Mean:	5.357	1.510	54.669	728.122
Standard Deviation:	.157	.090	4.653	18.443

Sample M-MD Aged 17 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.459	1.688	63.013	709.668
2	5.056	1.404	49.287	726.295
3	5.217	1.489	53.399	738.339
4	5.355	1.573	59.203	757.812
5	5.295	1.710	61.965	713.998
6	5.030	1.447	48.851	708.166
7	5.468	1.700	62.997	708.050
8	5.451	1.710	63.509	696.148
9	5.451	1.640	62.617	738.880
10	5.178	1.482	51.440	769.712
11	5.381	1.617	58.424	717.244
12	5.390	1.631	59.104	716.706
13	5.420	1.629	60.453	729.684
14	5.412	1.697	62.213	711.294
Mean:	5.326	1.601	58.320	724.428
Standard Deviation:	.149	.105	5.310	20.646

Sample M-MD Aged 120 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.602	1.561	60.427	777.284
2	5.472	1.626	60.847	745.371
3	5.554	1.697	64.800	751.862
4	5.230	1.425	52.593	800.412
5	5.087	1.360	46.901	769.437
6	5.199	1.400	49.742	768.749
7	5.710	1.635	64.376	806.493
Excluded	.004	.023	.000	.000
9	5.425	1.553	56.975	738.453
10	5.511	1.617	61.027	750.239
11	5.030	1.400	49.253	745.341
12	5.186	1.403	50.330	762.783
13	5.091	1.406	49.159	748.552
14	5.286	1.514	56.009	740.980
15	5.442	1.642	61.714	738.340
Mean:	5.345	1.517	56.011	760.307
Standard Deviation:	.214	.115	6.249	21.983

Sample M-MD Aged 168 hours

Specimen Number	Tensile Strength kN/m	% Stretch (%)	Tensile Energy Absorption J/m^2	Tensile Stiffness (Et) kN/m
1	5.065	1.401	47.990	749.700
2	5.455	1.558	57.247	752.947
3	5.585	1.622	60.915	757.275
4	5.360	1.492	54.213	760.944
5	5.719	1.699	66.696	760.518
6	5.156	1.391	49.088	757.279
7	5.585	1.598	60.209	752.402
8	5.619	1.568	59.755	771.334
9	5.078	1.528	53.274	719.407
10	5.004	1.309	45.528	770.348
11	5.295	1.404	51.397	775.404
12	5.338	1.395	50.307	776.092
13	5.351	1.502	55.549	757.276
14	5.221	1.564	55.978	737.257
Mean:	5.345	1.502	54.896	757.013
Standard Deviation:	.226	.109	5.822	15.214

ELMENDORF TEAR DATA

Elmendorf Tear, mN
Sample A Machine Direction

Test Number	Unaged	Aged 17 Hrs	Aged 120 Hrs	Aged 168 Hrs
1	463	416	471	424
2	424	400	424	424
3	424	408	432	416
4	518	432	424	416
5	439	408	424	439
6	463	408	455	392
7	471	439	432	416
8	463	447	439	424
9	432	416	432	408
10	424	439	400	439
Average	451.9	421.3	433.1	419.7
Std. Dev.	29.9	16.6	19.1	14.0

Cross Direction

1	510	518	534	549
2	541	486	502	518
3	534	518	526	526
4	534	494	494	518
5	510	510	510	518
6	549	486	486	510
7	534	526	518	534
8	518	510	502	518
9	549	494	502	518
10	534	518	518	510
Average	531.1	506.0	509.2	521.7
Std. Dev.	14.3	14.4	14.5	11.8

ELMENDORF TEAR DATA

Elmendorf Tear, mN
Sample B Machine Direction

Test Number	Unaged	Aged 17 Hrs	Aged 120 Hrs	Aged 168 Hrs
1	353	361	369	392
2	369	345	361	353
3	377	345	353	345
4	345	345	361	369
5	353	353	361	369
6	361	353	345	330
7	369	361	353	345
8	361	337	353	345
9	361	345	377	369
10	361	345	345	345
Average	360.9	349.1	357.8	356.2
Std. Dev.	9.1	7.6	9.9	18.2

Cross Direction

1	424	416	424	463
2	432	416	432	455
3	463	408	416	408
4	439	400	432	439
5	432	416	432	424
6	424	416	416	432
7	447	416	400	424
8	447	424	416	463
9	439	408	424	447
10	424	424	424	416
Average	437.0	414.2	421.3	437.0
Std. Dev.	12.8	7.2	9.8	19.6

ELMENDORF TEAR DATA

Elmendorf Tear, mN
Sample C Machine Direction

Test Number	Unaged	Aged 17 Hrs	Aged 120 Hrs	Aged 168 Hrs
1	447	432	432	455
2	455	432	417	408
3	463	471	455	439
4	432	439	439	432
5	455	439	424	424
6	463	439	408	439
7	455	455	439	424
8	455	455	432	432
9	455	432	408	455
10	455	408	424	424
Average	453.5	440.1	427.7	433.1
Std. Dev.	8.9	17.1	14.8	14.7

Cross Direction

1	565	549	510	541
2	534	534	518	502
3	557	534	534	526
4	541	518	541	518
5	518	534	526	534
6	557	534	526	534
7	534	541	518	510
8	541	534	510	534
9	526	526	510	518
10	502	534	510	518
Average	537.4	533.5	520.2	523.3
Std. Dev.	19.3	8.3	11.1	12.3

ELMENDORF TEAR DATA

Elmendorf Tear, mN
Sample D Machine Direction

Test Number	Unaged	Aged 17 Hrs	Aged 120 Hrs	Aged 168 Hrs
1	392	400	392	424
2	408	392	377	392
3	384	400	392	392
4	400	400	384	384
5	392	392	400	408
6	392	377	392	392
7	400	424	384	392
8	377	392	408	392
9	392	400	400	392
10	384	416	400	392
Average	392.3	399.3	393.1	396.2
Std. Dev.	9.1	13.0	9.4	11.2

Cross Direction

1	471	455	510	471
2	455	447	486	463
3	463	455	447	471
4	455	479	463	463
5	471	447	471	486
6	486	447	479	463
7	447	463	463	463
8	486	447	463	455
9	471	463	471	455
10	479	455	455	447
Average	468.4	455.8	470.7	463.7
Std. Dev.	13.4	10.1	17.7	10.8

ELMENDORF TEAR DATA

Elmendorf Tear, mN
Sample E Machine Direction

Test Number	Unaged	Aged 17 Hrs	Aged 120 Hrs	Aged 168 Hrs
1	424	416	424	392
2	432	439	424	416
3	424	416	439	432
4	408	439	439	439
5	432	439	400	432
6	424	463	424	439
7	447	408	424	439
8	439	424	408	447
9	424	432	424	424
10	424	455	424	416
Average	427.6	433.1	422.9	427.6
Std. Dev.	10.6	17.7	12.0	16.2

Cross Direction

1	541	588	588	588
2	557	557	581	573
3	565	565	565	588
4	549	557	557	573
5	565	565	549	565
6	565	588	573	573
7	565	565	557	565
8	581	565	565	549
9	565	565	557	557
10	541	541	549	565
Average	559.4	565.7	564.1	569.6
Std. Dev.	12.3	14.1	13.0	12.4

ELMENDORF TEAR DATA

Elmendorf Tear, mN
Sample F Machine Direction

Test Number	Unaged	Aged 17 Hrs	Aged 120 Hrs	Aged 168 Hrs
1	714	651	526	424
2	737	659	447	424
3	737	635	510	416
4	769	628	455	455
5	730	635	494	416
6	683	628	455	416
7	753	596	518	408
8	690	667	471	455
9	706	620	486	424
10	722	612	494	424
Average	724.1	633.1	485.6	426.0
Std. Dev.	26.9	21.6	27.8	16.1

Cross Direction

1	839	769	565	526
2	832	769	581	534
3	816	753	581	549
4	839	761	565	502
5	839	722	573	510
6	832	745	557	510
7	800	745	557	502
8	824	777	588	494
9	785	745	565	486
10	816	745	581	494
Average	822.2	753.2	571.2	510.7
Std. Dev.	18.4	16.1	11.0	19.7

ELMENDORF TEAR DATA

Elmendorf Tear, mN
Sample G Machine Direction

Test Number	Unaged	Aged 17 Hrs	Aged 120 Hrs	Aged 168 Hrs
1	565	526	518	541
2	565	518	541	534
3	541	494	518	526
4	534	541	534	518
5	526	518	534	518
6	549	534	526	534
7	557	518	526	534
8	534	526	502	510
9	549	534	518	549
10	534	510	518	510
Average	545.3	521.7	523.3	527.2
Std. Dev.	14.0	13.5	11.1	13.2

Cross Direction

1	628	588	581	573
2	604	581	588	549
3	612	596	581	596
4	581	565	588	565
5	596	604	573	565
6	573	557	581	557
7	596	581	573	557
8	604	573	573	573
9	604	573	573	573
10	604	588	549	534
Average	600.2	580.6	575.9	564.1
Std. Dev.	15.4	14.3	11.2	16.7

ELMENDORF TEAR DATA

Elmendorf Tear, mN
Sample H Machine Direction

Test Number	Unaged	Aged 17 Hrs	Aged 120 Hrs	Aged 168 Hrs
1	298	314	267	251
2	314	314	251	235
3	298	306	251	251
4	314	298	267	251
5	298	298	267	251
6	290	314	259	251
7	306	298	251	235
8	314	298	282	245
9	314	298	251	235
10	298	322	259	267
Average	304.4	306.0	260.5	247.3
Std. Dev.	8.9	9.1	10.3	9.9

Cross Direction

1	408	392	361	330
2	392	400	345	330
3	400	392	353	337
4	392	400	353	330
5	392	369	345	337
6	392	369	345	330
7	400	361	345	330
8	408	400	345	337
9	408	392	337	345
10	400	408	337	337
Average	399.3	388.4	346.8	334.2
Std. Dev.	6.9	16.2	7.2	5.5

ELMENDORF TEAR DATA

Elmendorf Tear, mN
Sample I Machine Direction

Test Number	Unaged	Aged 17 Hrs	Aged 120 Hrs	Aged 168 Hrs
1	345	322	314	314
2	345	306	298	314
3	330	330	298	314
4	322	298	314	337
5	322	322	298	337
6	330	314	298	314
7	330	314	306	322
8	345	345	298	314
9	314	298	314	322
10	306	314	306	314
Average	328.7	316.2	304.4	320.1
Std. Dev.	13.6	14.3	7.2	9.6

Cross Direction

1	447	408	424	400
2	455	400	408	400
3	455	408	408	400
4	455	392	400	392
5	439	384	424	384
6	455	416	392	408
7	416	392	414	416
8	408	400	400	384
9	408	400	384	416
10	408	408	392	408
Average	434.6	400.9	404.6	400.9
Std. Dev.	21.9	9.4	13.3	11.4

ELMENDORF TEAR DATA

Elmendorf Tear, mN
Sample J Machine Direction

Test Number	Unaged	Aged 17 Hrs	Aged 120 Hrs	Aged 168 Hrs
1	392	345	361	330
2	384	353	353	330
3	377	361	330	345
4	361	369	345	337
5	384	353	345	353
6	369	398	345	439
7	369	398	345	330
8	377	369	361	337
9	377	353	353	322
10	377	337	345	345
Average	376.6	363.6	348.3	346.8
Std. Dev.	9.1	20.6	9.2	33.9

Cross Direction

1	518	486	463	432
2	486	502	463	432
3	475	494	447	424
4	486	471	463	424
5	486	486	471	432
6	486	471	455	439
7	475	486	471	455
8	494	471	463	432
9	494	479	455	432
10	486	494	463	432
Average	488.8	484.1	461.3	433.1
Std. Dev.	12.2	11.1	7.2	8.9

ELMENDORF TEAR DATA

Elmendorf Tear, mN
Sample K Machine Direction

Test Number	Unaged	Aged 17 Hrs	Aged 120 Hrs	Aged 168 Hrs
1	424	408	408	408
2	432	424	424	424
3	432	432	392	408
4	432	432	408	424
5	400	424	392	392
6	400	439	424	424
7	408	439	408	400
8	424	439	408	400
9	408	439	408	392
10	416	416	408	408
Average	417.4	429.2	408.0	408.0
Std. Dev.	12.7	11.1	10.5	12.3

Cross Direction

1	377	361	384	392
2	384	369	384	377
3	377	361	408	377
4	384	361	353	377
5	361	377	369	392
6	377	361	377	377
7	369	384	361	373
8	361	353	377	377
9	361	345	377	384
10	345	345	377	392
Average	369.5	361.7	376.6	381.7
Std. Dev.	12.5	12.5	14.8	7.9

ELMENDORF TEAR DATA

Elmendorf Tear, mN
Sample L Machine Direction

Test Number	Unaged	Aged 17 Hrs	Aged 120 Hrs	Aged 168 Hrs
1	416	439	408	447
2	439	463	432	439
3	424	439	432	439
4	424	439	424	439
5	432	439	416	439
6	432	432	432	455
7	408	424	416	432
8	416	463	416	416
9	455	455	439	416
10	424	439	463	416
Average	426.8	443.3	427.6	433.9
Std. Dev.	13.4	12.9	15.8	13.9

Cross Direction

1	486	471	494	486
2	479	463	463	471
3	463	447	479	479
4	486	471	479	463
5	486	463	486	471
6	439	447	534	471
7	439	447	494	439
8	432	463	471	471
9	432	455	447	439
10	439	439	439	447
Average	458.2	456.6	478.6	463.7
Std. Dev.	24.3	11.0	26.7	16.3

ELMENDORF TEAR DATA

Elmendorf Tear, mN
Sample M Machine Direction

Test Number	Unaged	Aged 17 Hrs	Aged 120 Hrs	Aged 168 Hrs
1	400	392	384	400
2	408	408	400	392
3	408	392	392	408
4	408	408	400	384
5	400	424	377	384
6	400	416	392	392
7	400	392	408	377
8	400	408	392	369
9	392	424	408	392
10	392	400	400	377
Average	400.9	406.4	395.4	387.6
Std. Dev.	5.8	12.2	9.9	11.8

Cross Direction

1	518	502	502	486
2	502	502	502	486
3	486	502	486	486
4	471	486	486	502
5	494	494	471	502
6	486	479	471	479
7	486	494	471	494
8	486	494	486	494
9	486	494	486	494
10	471	486	471	502
Average	488.8	493.5	483.3	492.7
Std. Dev.	13.9	7.8	12.4	8.1

MIT FOLD DATA

MIT Fold, log(10)N
Sample A Machine Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.76	2.59	2.77	2.74	2.69	2.56	2.69
2	2.69	2.69	2.75	2.72	2.58	2.55	2.66
3	2.81	2.72	2.91	2.81	2.80	2.67	2.79
4	2.72	2.55	2.59	2.79	2.64	2.65	2.66
5	2.55	2.71	2.80	2.74	2.67	2.72	2.70
6	2.77	2.75	2.81	2.75	2.68	2.63	2.73
7	2.72	2.83	2.79	2.74	2.78	2.86	2.79
8	2.89	2.82	2.73	2.70	2.71	2.73	2.76
9	2.86	2.76	2.61	2.87	2.74	2.65	2.75
10	2.76	2.71	2.61	2.73	2.70	2.72	2.71
11	2.78	2.74	2.74	2.80	2.69	2.64	2.73
12	2.76	2.72	2.49	2.81	2.78	2.73	2.71
13	2.69	2.73	2.79	2.60	2.69	2.53	2.67
14	2.73	2.82	2.79	2.71	2.52	2.68	2.71
Average							2.718
Std. Dev.							0.042

Sample A Machine Direction - Aged 17 Hours

1	2.57	2.68	2.59	2.69	2.64	2.75	2.65
2	2.73	2.74	2.76	2.54	2.56	2.72	2.67
3	2.52	2.38	2.74	2.52	2.66	2.73	2.59
4	2.57	2.63	2.61	2.44	2.72	2.49	2.58
5	2.61	2.63	2.83	2.64	2.80	2.61	2.69
6	2.46	2.73	2.68	2.84	2.74	2.71	2.69
7	2.69	2.82	2.67	2.76	2.59	2.70	2.70
8	2.61	2.64	2.64	2.78	2.78	2.48	2.65
9	2.69	2.60	2.53	2.74	2.69	2.55	2.63
10	2.71	2.71	2.69	2.41	2.60	2.81	2.65
11	2.65	2.72	2.71	2.59	2.66	2.65	2.66
12	2.67	2.80	2.80	2.68	2.72	2.49	2.69
13	2.71	2.72	2.61	2.61	2.64	2.57	2.64
14	2.68	2.73	2.73	2.75	2.82	2.79	2.75
Average							2.662
Std. Dev.							0.045

MIT FOLD DATA

MIT Fold, log(10)N
Sample A Machine Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.63	2.56	2.66	2.72	2.77	2.59	2.66
2	2.63	2.64	2.66	2.62	2.70	2.61	2.64
3	2.67	2.62	2.71	2.81	2.64	2.62	2.68
4	2.59	2.68	2.45	2.56	2.84	2.70	2.64
5	2.54	2.53	2.68	2.59	2.66	2.72	2.62
6	2.46	2.62	2.67	2.68	2.58	2.54	2.59
7	2.62	2.71	2.53	2.43	2.76	2.56	2.60
8	2.69	2.73	2.50	2.68	2.49	2.45	2.59
9	2.65	2.60	2.61	2.80	2.75	2.73	2.69
10	2.69	2.38	2.69	2.67	2.84	2.63	2.65
11	2.58	2.71	2.70	2.38	2.62	2.67	2.61
12	2.67	2.74	2.70	2.76	2.66	2.66	2.70
13	2.62	2.69	2.72	2.49	2.73	2.83	2.68
14	2.72	2.49	2.68	2.58	2.61	2.58	2.61
Average							2.639
Std. Dev.							0.038

Sample A Machine Direction - Aged 168 hours

1	2.63	2.63	2.69	2.58	2.56	2.74	2.64
2	2.72	2.74	2.51	2.39	2.47	2.60	2.57
3	2.64	2.54	2.62	2.61	2.69	2.55	2.61
4	2.59	2.75	2.74	2.38	2.74	2.76	2.66
5	2.69	2.42	2.71	2.52	2.63	2.46	2.57
6	2.64	2.58	2.59	2.59	2.67	2.56	2.60
7	2.65	2.70	2.59	2.43	2.54	2.68	2.60
8	2.78	2.66	2.67	2.45	2.57	2.59	2.62
9	2.61	2.56	2.56	2.65	2.30	2.55	2.54
10	2.36	2.59	2.64	2.37	2.35	2.51	2.47
11	2.61	2.74	2.61	2.55	2.61	2.54	2.61
12	2.78	2.72	2.68	2.69	2.69	2.70	2.71
13	2.58	2.76	2.58	2.53	2.56	2.49	2.58
14	2.69	2.53	2.42	2.65	2.64	2.65	2.59
Average							2.598
Std. Dev.							0.056

MIT FOLD DATA

MIT Fold, log(10)N
Sample A Cross Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.17	2.33	1.92	2.21	2.24	2.14	2.17
2	2.54	2.40	2.29	1.93	2.11	2.05	2.22
3	2.14	1.94	2.15	2.00	1.96	2.01	2.03
4	2.03	2.18	2.22	2.12	2.22	2.03	2.13
5	2.19	1.78	2.23	2.06	2.13	1.88	2.04
6	2.39	2.43	2.26	2.16	2.30	2.16	2.28
7	2.30	2.47	2.24	2.43	2.19	2.55	2.36
8	2.10	2.26	2.17	2.10	2.25	2.14	2.17
9	2.08	2.24	2.21	2.08	2.16	2.33	2.18
10	2.26	2.15	2.15	2.11	2.28	2.34	2.21
11	2.17	2.17	2.25	2.23	2.18	2.06	2.18
12	2.27	2.17	2.34	2.40	2.31	2.18	2.28
13	2.35	2.27	2.20	2.14	2.41	2.14	2.25
14	2.19	2.11	2.12	2.18	2.10	2.22	2.15
Average							2.191
Std. Dev.							0.089

Sample A Cross Direction - Aged 17 hours

1	2.14	2.28	2.37	2.20	2.18	2.20	2.23
2	2.29	2.34	2.30	2.11	2.27	2.31	2.27
3	2.11	2.20	2.37	2.08	2.38	2.31	2.24
4	2.07	2.18	2.17	2.47	2.29	2.36	2.26
5	2.32	2.18	2.40	2.41	2.33	2.40	2.34
6	2.25	2.35	2.32	2.23	2.18	2.08	2.23
7	2.37	2.40	2.32	2.23	2.15	2.21	2.28
8	2.41	2.26	2.19	2.22	2.06	2.25	2.23
9	2.43	2.20	2.30	2.24	1.94	2.28	2.23
10	2.04	2.22	2.18	2.24	2.16	2.29	2.19
11	2.31	2.61	2.67	2.37	2.25	2.21	2.40
12	2.28	2.17	2.23	2.18	2.29	2.00	2.19
13	2.20	2.30	2.13	2.18	2.13	2.24	2.20
14	2.27	2.36	2.08	2.31	2.41	2.14	2.26
Average							2.254
Std. Dev.							0.059

MIT FOLD DATA

MIT Fold, log(10)N
Sample A Cross Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.96	2.02	2.04	2.23	2.28	2.28	2.14
2	2.23	2.06	2.16	2.06	2.02	1.87	2.07
3	2.32	2.31	2.04	2.13	2.27	2.27	2.22
4	2.22	2.06	2.16	2.25	2.39	2.00	2.18
5	2.10	2.05	2.21	2.09	2.23	2.18	2.15
6	2.17	2.30	2.23	2.40	2.01	1.95	2.18
7	2.28	2.16	2.03	1.96	2.14	2.08	2.11
8	2.02	2.08	2.10	2.03	2.20	1.94	2.06
9	2.10	1.95	2.02	2.15	2.29	2.06	2.09
10	2.22	2.20	2.22	2.10	2.34	2.20	2.21
11	2.05	2.27	2.15	2.17	2.09	2.23	2.16
12	2.25	2.07	1.95	2.17	2.18	1.92	2.09
13	1.87	2.01	2.22	2.22	2.17	2.06	2.09
14	2.25	2.19	2.14	2.16	2.03	2.34	2.18
Average							2.138
Std. Dev.							0.053

Sample A Cross Direction - Aged 168 hours

1	1.77	1.98	2.00	2.05	1.90	2.05	1.96
2	2.36	2.05	2.24	2.15	2.12	2.10	2.17
3	2.04	2.01	2.15	1.91	2.31	2.09	2.08
4	2.11	1.79	1.98	1.93	2.11	1.89	1.97
5	1.93	1.81	1.99	2.08	1.88	1.93	1.94
6	2.11	1.86	2.02	2.20	1.99	2.12	2.05
7	2.03	2.03	2.17	2.16	2.10	2.23	2.12
8	2.11	2.08	1.92	2.08	2.19	2.19	2.10
9	1.90	1.93	2.00	1.66	2.08	2.09	1.94
10	2.18	1.95	1.99	2.11	1.99	2.05	2.05
11	2.26	2.21	2.26	2.21	2.27	2.18	2.23
12	2.18	2.04	2.17	2.15	2.27	1.96	2.13
13	1.93	2.11	2.06	2.11	2.10	2.06	2.06
14	2.05	2.06	1.90	2.05	1.83	2.06	1.99
Average							2.056
Std. Dev.							0.089

MIT FOLD DATA

MIT Fold, log(10)N
Sample B Machine Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.40	2.16	2.24	2.07	2.48	2.07	2.24
2	2.15	2.20	2.28	2.27	2.15	2.46	2.25
3	2.36	2.21	2.12	2.29	2.33	2.12	2.24
4	2.14	2.05	2.10	2.33	2.47	2.30	2.23
5	2.22	2.05	2.29	2.12	2.31	2.18	2.19
6	2.24	2.21	2.35	2.37	2.30	2.05	2.25
7	2.31	2.27	2.33	2.39	2.31	2.24	2.31
8	2.15	2.22	2.35	2.18	2.23	2.32	2.24
9	2.15	2.13	2.05	1.99	2.34	2.18	2.14
10	2.25	2.17	2.18	2.52	2.30	2.15	2.26
11	2.39	2.07	2.30	2.29	2.24	2.31	2.27
12	2.34	2.43	2.27	2.32	2.51	2.20	2.35
13	2.39	2.50	2.27	2.28	2.26	2.37	2.34
14	2.13	2.15	2.30	2.15	2.41	2.37	2.25
Average							2.255
Std. Dev.							0.053

Sample B Machine Direction - Aged 17 Hours

1	2.09	2.05	1.96	1.92	1.94	2.36	2.05
2	2.19	2.10	2.19	2.21	2.12	2.16	2.16
3	2.19	2.18	2.24	2.25	2.26	1.97	2.18
4	2.18	2.03	2.27	2.16	1.83	2.36	2.14
5	2.18	2.21	2.06	2.11	2.20	2.12	2.15
6	2.36	2.10	2.16	2.16	2.35	2.29	2.24
7	2.05	2.29	2.13	2.33	2.32	2.14	2.21
8	2.33	2.40	1.96	2.44	2.14	2.38	2.27
9	2.28	2.41	2.09	2.45	2.15	2.24	2.27
10	2.16	2.43	1.72	2.23	2.01	1.94	2.08
11	2.12	2.24	2.18	2.29	2.12	1.67	2.11
12	2.31	2.29	2.36	2.16	1.79	1.97	2.14
13	1.89	2.03	1.92	2.27	2.27	2.19	2.09
14	2.02	2.19	2.40	2.29	2.16	2.31	2.23
Average							2.166
Std. Dev.							0.070

MIT FOLD DATA

MIT Fold, log(10)N
Sample B Machine Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.98	2.03	1.88	1.90	2.18	2.32	2.05
2	2.12	2.08	2.04	2.17	2.00	2.04	2.08
3	2.11	2.13	2.50	2.45	2.18	2.12	2.25
4	2.05	2.10	2.09	1.93	2.29	2.23	2.12
5	1.92	2.03	2.16	1.91	1.80	2.19	2.00
6	1.92	2.26	2.11	2.06	2.03	2.25	2.11
7	1.81	2.20	2.14	2.08	1.90	2.17	2.05
8	2.07	1.85	2.02	1.78	1.91	2.06	1.95
9	2.12	2.18	2.34	2.46	2.26	2.17	2.26
10	2.32	2.13	1.97	1.91	2.13	2.23	2.12
11	1.92	2.06	2.28	2.11	2.25	2.18	2.13
12	2.23	2.15	2.26	2.08	2.30	2.01	2.17
13	2.16	2.23	2.13	2.18	2.29	2.35	2.22
14	2.08	2.11	1.99	2.16	1.84	2.09	2.05
Average							2.110
Std. Dev.							0.091

Sample B Machine Direction - Aged 168 hours

1	1.86	1.74	2.04	2.04	2.06	1.48	1.87
2	2.13	2.26	2.12	1.68	2.14	2.29	2.10
3	2.14	1.74	1.75	1.91	1.86	2.12	1.92
4	1.78	2.10	2.30	1.87	1.76	2.06	1.98
5	2.09	1.80	1.74	1.93	1.66	2.00	1.87
6	1.89	1.77	2.08	1.85	1.83	2.09	1.92
7	2.04	2.13	2.13	2.12	1.81	2.13	2.06
8	1.68	2.05	2.26	2.13	2.19	1.97	2.05
9	2.28	2.18	2.14	2.20	2.05	2.09	2.16
10	2.13	2.18	2.05	2.27	2.38	2.23	2.21
11	1.62	1.85	1.92	2.04	2.17	1.74	1.89
12	1.56	1.91	1.87	1.79	1.89	1.99	1.83
13	1.71	2.03	1.94	2.21	1.80	2.04	1.96
14	1.89	1.96	2.08	2.11	2.18	1.89	2.02
Average							1.988
Std. Dev.							0.115

MIT FOLD DATA

MIT Fold, log(10)N
Sample B Cross Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.83	1.74	1.82	1.71	1.64	2.13	1.81
2	2.20	2.06	2.12	2.08	1.72	1.87	2.01
3	2.12	1.79	1.78	1.73	1.83	1.85	1.85
4	1.99	2.02	1.81	1.59	1.76	1.93	1.85
5	1.83	1.63	1.84	1.78	2.18	2.06	1.89
6	1.70	1.87	1.78	1.85	1.72	1.72	1.77
7	1.79	1.72	1.75	1.82	2.29	1.57	1.82
8	1.60	2.03	1.83	1.74	1.94	1.57	1.79
9	2.12	1.86	1.72	1.83	1.57	1.94	1.84
10	2.05	1.74	2.16	1.98	1.81	2.10	1.97
11	2.35	1.97	2.08	1.85	1.72	1.81	1.96
12	2.06	2.12	2.47	1.85	1.98	2.19	2.11
13	2.06	2.04	1.99	2.14	1.93	2.24	2.07
14	1.96	1.98	1.93	2.20	2.17	2.16	2.07
Average							1.915
Std. Dev.							0.114

Sample B Cross Direction - Aged 17 hours

1	2.00	1.72	1.54	1.79	1.65	1.64	1.73
2	1.75	1.97	2.00	2.19	2.04	1.86	1.97
3	1.95	2.11	1.88	1.92	2.02	2.03	1.99
4	1.91	1.92	1.89	1.92	1.84	1.82	1.88
5	1.97	1.90	1.76	1.65	1.70	1.72	1.78
6	1.70	2.00	1.66	1.64	1.59	1.95	1.76
7	1.56	1.57	1.70	1.57	1.49	1.63	1.59
8	2.29	2.26	2.37	2.12	2.01	1.92	2.16
9	1.73	1.59	1.59	2.17	2.19	2.11	1.90
10	1.45	1.54	1.49	1.41	1.34	1.60	1.47
11	2.03	2.12	1.98	2.20	1.90	1.72	1.99
12	2.06	1.80	1.89	2.06	1.88	1.83	1.92
13	2.15	1.77	1.89	1.26	1.80	1.97	1.80
14	1.88	1.86	2.03	2.01	2.00	2.06	1.97
Average							1.851
Std. Dev.							0.179

MIT FOLD DATA

MIT Fold, log(10)N
Sample B Cross Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.65	1.70	1.89	2.11	1.74	1.90	1.83
2	1.92	1.81	2.06	2.38	1.90	2.15	2.03
3	1.56	1.67	1.59	1.53	1.61	1.90	1.64
4	2.04	1.70	1.89	2.15	1.69	2.03	1.92
5	1.53	1.83	1.76	1.79	1.65	1.60	1.69
6	1.97	1.81	1.78	1.53	1.63	1.61	1.72
7	2.16	1.65	1.73	1.52	1.57	1.73	1.73
8	1.85	1.79	1.64	1.65	1.66	1.54	1.69
9	1.98	1.88	2.11	1.93	1.76	2.09	1.96
10	1.95	1.68	1.58	1.54	1.86	1.86	1.75
11	1.86	1.93	1.86	1.63	2.10	2.16	1.93
12	1.60	1.56	1.83	2.04	2.23	1.56	1.80
13	1.34	2.05	2.28	1.95	1.67	1.72	1.84
14	1.79	2.00	1.78	1.71	2.08	1.70	1.84
Average							1.812
Std. Dev.							0.115

Sample B Cross Direction - Aged 168 hours

1	1.70	1.73	1.79	2.02	1.48	2.07	1.80
2	1.83	1.63	1.98	1.79	1.65	1.65	1.76
3	1.95	1.89	1.51	1.77	1.80	1.66	1.76
4	1.68	1.59	1.65	1.88	1.54	1.41	1.63
5	1.85	1.83	1.63	1.61	1.71	1.91	1.76
6	1.60	1.82	1.69	1.87	1.60	1.89	1.75
7	1.54	1.69	1.80	1.63	1.65	1.66	1.66
8	1.34	1.59	1.61	1.72	1.60	1.65	1.59
9	1.94	1.82	1.81	1.67	1.63	1.54	1.74
10	1.83	1.95	1.58	1.59	1.82	1.98	1.79
11	1.57	1.61	1.76	1.73	1.48	2.05	1.70
12	1.75	1.65	2.03	2.15	2.26	1.92	1.96
13	1.70	2.07	1.79	1.68	1.64	1.85	1.79
14	1.45	1.28	1.59	2.03	1.82	1.80	1.66
Average							1.738
Std. Dev.							0.091

MIT FOLD DATA

MIT Fold, log(10)N
Sample C Machine Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.73	2.86	2.78	2.73	2.78	2.57	2.74
2	2.70	2.57	2.80	2.73	2.62	2.82	2.70
3	2.68	2.72	2.63	2.84	2.70	2.47	2.67
4	2.63	2.68	2.64	2.83	2.62	2.68	2.68
5	2.75	2.73	2.69	2.65	2.68	2.54	2.67
6	2.73	2.72	2.77	2.61	2.58	2.74	2.69
7	2.83	2.84	2.77	2.70	2.74	2.59	2.75
8	2.66	2.76	2.68	2.53	2.68	2.68	2.67
9	2.68	2.74	2.81	2.63	2.77	2.80	2.74
10	2.76	2.81	2.76	2.61	2.61	2.61	2.69
11	2.73	2.79	2.74	2.80	2.69	2.68	2.74
12	2.76	2.82	2.77	2.75	2.54	2.56	2.70
13	2.61	2.77	2.80	2.76	2.55	2.64	2.69
14	2.69	2.64	2.72	2.55	2.55	2.53	2.61
Average							2.696
Std. Dev.							0.036

Sample C Machine Direction - Aged 17 Hours

1	2.45	2.53	2.52	2.65	2.64	2.69	2.58
2	2.77	2.59	2.76	2.64	2.64	2.69	2.68
3	2.83	2.70	2.64	2.73	2.66	2.67	2.71
4	2.71	2.61	2.85	2.62	2.72	2.70	2.70
5	2.87	2.76	2.60	2.69	2.72	2.69	2.72
6	2.75	2.69	2.70	2.76	2.60	2.65	2.69
7	2.80	2.63	2.60	2.55	2.65	2.64	2.64
8	2.76	2.89	2.74	2.73	2.60	2.60	2.72
9	2.40	2.42	2.72	2.71	2.66	2.63	2.59
10	2.79	2.55	2.65	2.68	2.68	2.45	2.63
11	2.59	2.71	2.70	2.72	2.54	2.52	2.63
12	2.52	2.80	2.69	2.56	2.55	2.54	2.61
13	2.76	2.58	2.57	2.42	2.53	2.52	2.56
14	2.75	2.74	2.58	2.66	2.68	2.73	2.69
Average							2.655
Std. Dev.							0.054

MIT FOLD DATA

MIT Fold, log(10)N
Sample C Machine Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.47	2.51	2.60	2.66	2.35	2.34	2.49
2	2.49	2.73	2.60	2.75	2.72	2.51	2.63
3	2.73	2.50	2.41	2.53	2.46	2.55	2.53
4	2.77	2.50	2.39	2.59	2.50	2.60	2.56
5	2.71	2.57	2.54	2.60	2.55	2.65	2.60
6	2.64	2.76	2.65	2.70	2.68	2.64	2.68
7	2.25	2.60	2.66	2.30	2.66	2.51	2.50
8	2.44	2.66	2.57	2.58	2.72	2.52	2.58
9	2.51	2.57	2.31	2.61	2.61	2.73	2.56
10	2.45	2.53	2.67	2.81	2.79	2.68	2.66
11	2.58	2.46	2.49	2.73	2.51	2.52	2.55
12	2.64	2.56	2.70	2.61	2.54	2.46	2.59
13	2.72	2.48	2.57	2.35	2.72	2.69	2.59
14	2.64	2.59	2.60	2.62	2.59	2.64	2.61
Average							2.580
Std. Dev.							0.056

Sample C Machine Direction - Aged 168 hours

1	2.72	2.49	2.54	2.38	2.53	2.51	2.53
2	2.68	2.55	2.57	2.58	2.52	2.67	2.60
3	2.25	2.58	2.64	2.70	2.62	2.67	2.58
4	2.54	2.49	2.77	2.68	2.66	2.53	2.61
5	2.58	2.54	2.49	2.61	2.57	2.59	2.56
6	2.72	2.68	2.57	2.62	2.48	2.49	2.59
7	2.37	2.72	2.65	2.48	2.59	2.44	2.54
8	2.75	2.46	2.57	2.55	2.61	2.63	2.59
9	2.51	2.60	2.39	2.17	2.60	2.39	2.44
10	2.51	2.60	2.43	2.50	2.48	2.55	2.51
11	2.63	2.37	2.53	2.64	2.63	2.44	2.54
12	2.66	2.57	2.65	2.58	2.53	2.66	2.61
13	2.48	2.44	2.29	2.44	2.28	2.75	2.45
14	2.63	2.40	2.65	2.47	2.40	2.37	2.49
Average							2.546
Std. Dev.							0.057

MIT FOLD DATA

MIT Fold, log(10)N
Sample C Cross Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.11	1.91	2.11	2.13	2.06	2.09	2.07
2	1.93	2.03	2.19	2.20	2.26	2.10	2.12
3	2.30	2.24	2.05	2.05	2.03	2.00	2.11
4	2.15	2.35	2.40	2.33	2.32	2.16	2.29
5	2.26	2.14	2.09	2.19	2.07	2.43	2.20
6	2.20	2.22	1.94	2.31	2.21	2.17	2.18
7	1.94	2.08	2.14	2.21	2.21	2.35	2.15
8	2.35	2.15	2.06	2.07	2.18	2.40	2.20
9	2.32	2.24	2.22	2.18	2.15	1.96	2.18
10	2.45	1.97	2.44	2.22	2.21	2.14	2.24
11	2.24	2.05	2.13	2.39	2.06	2.02	2.15
12	2.27	2.29	2.29	2.19	2.20	2.32	2.26
13	2.34	2.20	1.93	2.23	2.27	2.26	2.21
14	1.98	1.93	2.33	2.33	2.39	2.17	2.19
Average							2.181
Std. Dev.							0.059

Sample C Cross Direction - Aged 17 hours

1	2.02	2.01	2.17	2.13	2.26	2.15	2.12
2	2.22	2.08	2.14	2.22	2.15	2.27	2.18
3	2.12	2.16	2.05	2.13	2.17	2.21	2.14
4	2.25	2.21	2.08	2.18	2.22	2.19	2.19
5	2.06	2.22	2.18	2.08	2.31	2.10	2.16
6	2.12	2.12	2.12	2.13	2.20	2.05	2.12
7	2.31	2.29	2.32	2.44	2.29	2.27	2.32
8	2.01	2.20	2.13	2.00	1.97	2.26	2.10
9	2.29	2.27	2.29	2.25	2.09	2.18	2.23
10	2.24	2.08	1.90	2.29	2.26	2.17	2.16
11	2.18	2.06	2.27	2.46	2.28	2.27	2.25
12	2.32	2.35	2.32	2.27	2.36	2.21	2.30
13	2.27	2.32	2.23	2.31	2.37	2.09	2.26
14	1.96	2.13	2.07	2.16	2.10	2.18	2.10
Average							2.188
Std. Dev.							0.074

MIT FOLD DATA

MIT Fold, log(10)N
Sample C Cross Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.98	2.02	1.90	2.14	1.93	2.11	2.01
2	2.23	2.07	1.90	2.13	2.01	2.04	2.06
3	1.91	1.82	1.64	2.17	1.90	2.03	1.91
4	2.21	2.18	1.99	2.07	2.31	1.95	2.12
5	1.99	2.12	2.03	1.93	2.02	2.01	2.02
6	1.91	1.96	1.93	1.97	1.85	2.16	1.96
7	1.84	2.05	1.70	1.93	2.05	1.95	1.92
8	1.99	2.16	2.10	2.15	2.07	2.05	2.09
9	2.02	1.91	2.03	1.79	2.05	2.03	1.97
10	2.02	1.85	1.92	1.86	2.01	1.92	1.93
11	1.83	1.89	1.77	1.99	1.96	1.89	1.89
12	2.12	2.05	1.99	2.03	1.94	2.00	2.02
13	1.98	2.21	2.04	2.05	1.91	1.90	2.01
14	2.00	2.14	2.08	2.01	2.15	1.86	2.04
Average							1.997
Std. Dev.							0.069

Sample C Cross Direction - Aged 168 hours

1	2.16	2.05	1.90	1.85	2.06	2.03	2.01
2	1.90	1.98	1.90	1.82	1.84	2.03	1.91
3	2.08	1.83	1.85	2.02	1.78	1.80	1.89
4	2.02	1.71	1.78	2.03	1.73	1.90	1.86
5	1.86	2.15	1.95	2.00	1.93	1.94	1.97
6	2.07	1.83	1.92	1.94	1.91	1.91	1.93
7	1.90	1.85	1.69	1.71	1.77	1.81	1.79
8	2.05	1.84	2.06	1.97	1.77	1.88	1.93
9	2.07	2.05	2.06	2.20	2.25	2.25	2.15
10	2.15	1.59	2.07	1.96	1.95	2.04	1.96
11	1.89	1.98	1.92	1.94	1.73	1.83	1.88
12	2.05	1.72	1.53	1.93	1.59	1.90	1.79
13	1.88	1.97	2.02	1.85	1.81	2.21	1.96
14	1.62	1.69	1.68	1.70	1.52	1.86	1.68
Average							1.907
Std. Dev.							0.111

MIT FOLD DATA

MIT Fold, log(10)N
Sample D Machine Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.43	2.54	2.46	2.57	2.60	2.40	2.50
2	2.54	2.33	2.49	2.40	2.48	2.29	2.42
3	2.52	2.61	2.48	2.49	2.49	2.56	2.52
4	2.60	2.50	2.49	2.43	2.58	2.56	2.53
5	2.61	2.50	2.51	2.43	2.66	2.53	2.54
6	2.43	2.21	2.57	2.60	2.55	2.46	2.47
7	2.58	2.46	2.52	2.54	2.49	2.53	2.52
8	2.37	2.58	2.45	2.62	2.36	2.40	2.46
9	2.63	2.52	2.39	2.57	2.49	2.49	2.52
10	2.60	2.54	2.52	2.33	2.34	2.39	2.45
11	2.49	2.42	2.38	2.40	2.35	2.57	2.44
12	2.54	2.51	2.43	2.51	2.34	2.44	2.46
13	2.30	2.62	2.49	2.39	2.54	2.41	2.46
14	2.38	2.51	2.55	2.52	2.24	2.49	2.45
Average							2.481
Std. Dev.							0.038

Sample D Machine Direction - Aged 17 Hours

1	2.48	2.48	2.46	2.25	2.36	2.39	2.40
2	2.33	2.26	2.49	2.40	2.22	2.47	2.36
3	1.91	2.26	2.41	2.26	2.44	2.42	2.28
4	2.36	2.07	2.21	2.37	2.12	2.40	2.25
5	2.17	2.37	2.20	2.48	2.31	2.31	2.31
6	2.48	2.22	2.11	2.10	2.38	2.49	2.30
7	1.88	2.34	2.37	2.37	2.39	2.45	2.30
8	2.62	2.37	2.37	1.91	2.30	2.53	2.35
9	2.17	2.31	2.25	2.44	2.26	2.47	2.32
10	2.11	2.33	2.54	2.35	2.09	2.53	2.33
11	2.31	2.37	2.16	2.37	2.16	2.49	2.31
12	2.14	2.40	2.29	2.18	2.54	2.49	2.34
13	2.53	2.37	2.20	2.25	2.45	2.07	2.31
14	2.35	2.31	2.14	2.07	2.51	2.44	2.30
Average							2.319
Std. Dev.							0.036

MIT FOLD DATA

MIT Fold, log(10)N
Sample D Machine Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.23	2.02	2.41	2.27	2.21	2.32	2.24
2	2.32	2.43	2.04	2.41	2.18	2.31	2.28
3	2.30	2.35	2.44	2.31	2.51	2.15	2.34
4	2.42	2.01	2.47	2.42	2.43	2.54	2.38
5	2.41	2.33	2.41	2.35	2.27	2.29	2.34
6	2.58	2.34	2.44	2.45	2.54	2.36	2.45
7	2.16	2.43	2.39	2.41	2.39	2.26	2.34
8	2.19	2.38	1.81	2.34	2.49	2.27	2.25
9	2.54	2.21	2.43	2.45	2.53	2.37	2.42
10	2.38	2.39	2.30	2.27	2.48	2.47	2.38
11	2.38	2.45	2.15	2.42	2.27	2.19	2.31
12	2.47	2.38	2.43	2.14	2.26	2.36	2.34
13	2.01	2.42	2.33	2.24	2.42	2.44	2.31
14	2.15	2.32	2.44	2.13	2.44	2.46	2.32
Average							2.337
Std. Dev.							0.060

Sample D Machine Direction - Aged 168 hours

1	2.26	2.15	2.28	2.16	2.15	1.85	2.14
2	1.91	2.38	2.10	2.25	2.45	2.31	2.23
3	2.12	2.09	2.24	1.97	1.72	2.29	2.07
4	2.34	2.12	2.30	2.27	1.81	2.45	2.22
5	2.17	2.26	2.09	2.04	2.00	2.28	2.14
6	2.29	2.38	2.38	2.41	2.47	2.28	2.37
7	1.81	2.03	2.28	2.37	2.59	2.25	2.22
8	2.29	2.50	2.40	2.43	2.36	2.34	2.39
9	2.35	2.32	2.31	1.88	2.28	2.43	2.26
10	2.53	2.26	2.40	2.29	2.10	1.74	2.22
11	2.03	2.15	2.36	2.34	2.34	2.24	2.24
12	2.26	2.28	2.18	2.48	2.27	2.21	2.28
13	2.37	2.57	2.10	2.46	2.49	2.07	2.34
14	2.49	2.34	2.03	2.46	2.34	2.52	2.36
Average							2.250
Std. Dev.							0.093

MIT FOLD DATA

MIT Fold, log(10)N
Sample D Cross Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.98	1.96	1.91	2.08	2.01	1.92	1.98
2	2.16	2.18	1.86	2.09	2.04	2.03	2.06
3	2.02	2.04	1.92	2.12	2.13	1.98	2.04
4	2.13	2.25	2.18	1.98	1.85	1.91	2.05
5	1.92	2.02	2.21	2.17	2.31	2.16	2.13
6	1.89	2.18	2.03	2.05	2.14	2.02	2.05
7	1.97	2.03	2.01	1.96	1.99	1.96	1.99
8	1.95	2.10	1.87	1.81	1.94	1.72	1.90
9	1.89	1.95	1.85	1.95	1.95	2.03	1.94
10	2.05	2.19	1.83	1.89	1.91	2.10	1.99
11	1.82	2.02	1.92	1.92	1.74	1.94	1.89
12	2.21	2.13	2.29	2.37	2.26	2.28	2.26
13	2.24	2.04	2.14	2.19	2.11	2.19	2.15
14	2.21	1.94	2.26	2.16	2.11	2.01	2.12
Average							2.038
Std. Dev.							0.102

Sample D Cross Direction - Aged 17 hours

1	2.04	2.16	2.12	1.85	2.16	1.99	2.05
2	2.04	2.17	1.99	2.04	1.93	2.16	2.05
3	2.04	2.07	1.89	1.91	1.95	1.95	1.97
4	1.78	1.97	1.96	1.97	1.79	1.89	1.89
5	2.06	2.26	2.08	2.21	2.13	2.12	2.14
6	2.03	1.93	1.94	1.98	2.04	2.00	1.99
7	1.95	1.87	2.08	2.19	2.21	2.12	2.07
8	2.03	2.05	2.05	1.91	2.09	1.98	2.02
9	1.98	1.83	1.77	1.90	1.92	2.05	1.91
10	2.11	2.20	2.11	2.12	2.20	2.23	2.16
11	1.96	2.01	2.06	2.04	1.95	1.81	1.97
12	1.91	2.13	2.03	2.16	2.16	2.23	2.10
13	2.13	2.00	1.95	2.00	2.05	2.05	2.03
14	2.04	1.79	1.97	2.05	1.91	2.03	1.97
Average							2.024
Std. Dev.							0.081

MIT FOLD DATA

MIT Fold, log(10)N
Sample D Cross Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.88	1.64	1.83	1.96	1.88	1.99	1.86
2	2.07	1.86	1.76	1.93	2.10	2.07	1.96
3	1.96	2.08	1.97	1.92	1.93	2.00	1.98
4	1.85	1.97	1.95	1.89	2.08	1.80	1.92
5	2.10	2.13	2.05	2.13	2.22	2.16	2.13
6	1.82	2.00	2.11	1.89	2.08	2.12	2.00
7	1.98	2.01	1.85	1.84	1.98	1.89	1.92
8	1.84	2.08	1.81	1.79	1.92	1.83	1.88
9	2.09	2.05	1.61	2.04	1.99	2.08	1.98
10	1.90	1.81	1.92	1.81	1.98	1.93	1.89
11	1.79	1.88	1.96	1.85	1.83	1.98	1.88
12	1.90	2.05	2.12	1.97	2.25	2.09	2.06
13	1.95	1.89	1.96	1.86	2.06	1.84	1.93
14	2.13	1.98	2.00	1.90	2.16	1.96	2.02
Average							1.959
Std. Dev.							0.077

Sample D Cross Direction - Aged 168 hours

1	1.71	1.94	2.14	2.03	1.92	2.12	1.98
2	1.86	1.83	1.88	1.93	1.99	1.91	1.90
3	2.06	2.09	2.07	2.05	2.06	2.08	2.07
4	2.00	1.98	1.87	1.96	2.15	1.99	1.99
5	1.91	2.00	1.94	1.94	2.00	1.96	1.96
6	1.93	2.00	2.06	1.80	2.19	1.98	1.99
7	2.22	1.86	1.92	2.08	2.17	2.06	2.05
8	1.79	1.93	1.89	1.99	2.10	1.87	1.93
9	2.08	2.21	2.20	1.91	2.05	1.91	2.06
10	2.20	1.81	1.92	2.16	2.25	2.10	2.07
11	2.09	2.09	1.90	2.03	2.01	2.01	2.02
12	2.13	2.00	2.08	1.79	1.89	2.19	2.01
13	1.90	1.79	2.09	2.06	2.21	2.26	2.05
14	2.24	2.11	1.83	2.22	2.15	2.17	2.12
Average							2.015
Std. Dev.							0.061

MIT FOLD DATA

MIT Fold, log(10)N
Sample E Machine Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.63	2.58	2.73	2.75	2.83	2.72	2.71
2	2.64	3.06	2.58	2.40	2.68	2.71	2.68
3	2.84	2.79	2.46	2.72	2.63	2.68	2.69
4	2.71	2.68	2.42	2.42	2.79	2.82	2.64
5	2.97	2.71	2.74	2.79	2.69	2.64	2.76
6	2.76	2.88	2.79	2.78	2.74	2.56	2.75
7	2.70	2.67	2.35	2.69	2.74	2.53	2.61
8	2.71	2.79	2.70	2.75	2.89	2.63	2.74
9	2.63	2.84	2.75	2.73	2.66	2.82	2.74
10	2.66	2.70	2.62	2.70	2.66	2.63	2.66
11	2.70	2.80	2.59	2.64	2.85	2.84	2.74
12	2.86	2.65	2.71	2.65	2.70	2.65	2.70
13	2.97	2.67	2.80	2.82	2.88	2.89	2.84
14	2.73	2.51	2.67	2.82	2.64	2.81	2.70
Average							2.711
Std. Dev.							0.057

Sample E Machine Direction - Aged 17 Hours

1	2.57	2.67	2.64	2.83	2.70	2.72	2.69
2	2.63	2.83	2.87	2.68	2.66	2.51	2.70
3	2.66	2.74	2.69	2.67	2.58	2.54	2.65
4	2.66	2.51	2.42	2.58	2.65	2.82	2.61
5	2.89	2.91	2.81	2.71	2.69	2.75	2.79
6	2.53	2.63	2.70	2.89	2.80	2.73	2.71
7	2.67	2.51	2.77	2.74	2.70	2.82	2.70
8	2.54	2.76	2.46	2.56	2.67	2.75	2.62
9	2.61	2.72	2.60	2.70	2.78	2.81	2.70
10	2.76	2.61	2.70	2.64	2.74	2.79	2.71
11	2.86	2.53	2.63	2.81	2.56	2.69	2.68
12	2.84	2.84	2.76	2.83	2.82	2.66	2.79
13	2.79	2.66	2.82	2.74	2.66	2.77	2.74
14	2.71	2.56	2.87	2.59	2.77	2.76	2.71
Average							2.700
Std. Dev.							0.053

MIT FOLD DATA

MIT Fold, log(10)N
Sample E Machine Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.62	2.67	2.49	2.26	2.76	2.90	2.62
2	2.66	2.70	2.39	2.68	2.72	2.76	2.65
3	2.63	2.76	2.59	2.76	2.65	2.80	2.70
4	2.75	2.60	2.55	2.71	2.75	2.73	2.68
5	2.65	2.77	2.74	2.60	2.77	2.82	2.72
6	2.83	2.66	2.54	2.78	2.46	2.61	2.65
7	2.62	2.72	2.75	2.42	2.61	2.84	2.66
8	2.72	2.64	2.74	2.76	2.63	2.64	2.69
9	2.76	2.71	2.79	2.68	2.75	2.66	2.72
10	2.69	2.75	2.72	2.76	2.85	2.57	2.72
11	2.77	2.62	2.77	2.68	2.70	2.72	2.71
12	2.75	2.76	2.60	2.76	2.69	2.75	2.72
13	2.76	2.61	2.88	2.67	2.63	2.62	2.69
14	2.66	2.88	2.72	2.69	2.43	2.73	2.68
Average							2.687
Std. Dev.							0.033

Sample E Machine Direction - Aged 168 hours

1	2.45	2.54	2.64	2.51	2.64	2.70	2.58
2	2.63	2.52	2.73	2.41	2.29	2.63	2.53
3	2.86	2.71	2.80	2.82	2.76	2.55	2.75
4	2.78	2.78	2.19	2.64	2.71	2.07	2.53
5	2.67	2.49	2.54	2.68	2.75	2.78	2.65
6	2.49	2.70	2.50	2.75	2.57	2.73	2.62
7	2.68	2.93	2.59	2.67	2.79	2.75	2.74
8	2.82	2.72	2.72	2.77	2.48	2.70	2.70
9	2.65	2.76	2.70	2.83	2.77	2.70	2.73
10	2.57	2.73	2.57	2.68	2.65	2.72	2.65
11	2.77	2.74	2.75	2.85	2.78	2.75	2.77
12	2.54	2.79	2.68	2.62	2.74	2.41	2.63
13	2.55	2.77	2.68	2.69	2.56	2.69	2.66
14	2.74	2.73	2.53	2.68	2.68	2.64	2.67
Average							2.659
Std. Dev.							0.076

MIT FOLD DATA

MIT Fold, log(10)N
Sample E Cross Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.04	2.05	1.82	1.94	1.88	1.89	1.94
2	2.06	2.05	2.10	2.03	1.94	2.03	2.03
3	1.87	1.73	1.94	1.87	1.85	2.09	1.89
4	1.97	1.91	1.90	2.02	2.27	2.08	2.03
5	1.90	1.99	1.84	1.81	2.01	1.98	1.92
6	2.16	2.12	1.91	2.01	1.99	2.00	2.03
7	1.71	1.85	2.08	2.21	2.00	1.87	1.95
8	1.86	1.90	1.98	2.04	1.85	1.92	1.92
9	1.91	1.98	2.03	2.29	2.01	1.87	2.01
10	2.24	1.93	1.76	1.83	2.00	1.90	1.94
11	1.98	2.08	1.92	2.10	1.84	2.08	2.00
12	1.93	1.93	1.90	2.02	1.95	1.76	1.92
13	1.91	2.01	1.96	1.85	1.88	2.08	1.95
14	1.91	1.85	2.08	1.81	2.17	2.03	1.97
Average							1.965
Std. Dev.							0.047

Sample E Cross Direction - Aged 17 hours

1	2.06	1.58	1.81	1.95	2.10	2.28	1.96
2	1.95	1.94	2.00	1.92	1.88	1.98	1.94
3	1.91	1.93	1.85	2.01	2.12	2.18	2.00
4	2.18	1.88	1.85	1.98	1.82	1.92	1.94
5	1.80	1.82	1.91	2.03	1.89	1.99	1.91
6	2.01	2.02	1.88	2.00	1.91	2.07	1.98
7	2.05	2.16	1.89	1.87	2.10	1.80	1.98
8	1.96	1.98	1.93	2.04	1.64	1.92	1.91
9	2.01	2.12	2.03	1.85	2.00	1.81	1.97
10	1.85	2.09	2.07	1.99	1.93	1.86	1.97
11	1.73	1.88	1.92	1.77	2.08	2.16	1.92
12	1.85	1.79	1.81	1.76	1.96	1.93	1.85
13	1.73	2.04	1.93	1.95	2.00	2.07	1.96
14	1.72	1.97	1.79	1.88	1.94	2.02	1.89
Average							1.941
Std. Dev.							0.041

MIT FOLD DATA

MIT Fold, log(10)N
Sample E Cross Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.76	1.71	1.83	1.89	1.71	1.66	1.76
2	1.93	1.82	1.78	1.69	1.86	1.91	1.83
3	1.99	1.88	1.72	1.93	1.61	1.94	1.85
4	2.06	1.82	1.77	1.67	1.70	1.74	1.79
5	1.95	2.08	2.03	1.91	1.97	1.96	1.99
6	2.01	1.90	1.86	1.83	1.82	2.04	1.91
7	1.91	2.15	2.00	1.92	2.00	2.18	2.03
8	1.85	1.82	2.00	1.90	1.72	1.73	1.84
9	2.11	2.00	1.99	1.83	1.92	1.81	1.95
10	1.59	1.95	1.88	1.78	1.93	1.93	1.84
11	1.79	1.80	1.81	1.91	1.82	1.73	1.81
12	1.58	1.92	2.00	1.72	1.84	1.86	1.82
13	2.00	1.88	1.70	2.06	2.10	1.94	1.95
14	2.08	2.03	1.89	1.74	1.81	1.86	1.90
Average							1.876
Std. Dev.							0.078

Sample E Cross Direction - Aged 168 hours

1	1.92	1.93	1.79	1.64	1.97	1.93	1.86
2	1.75	1.76	1.74	2.00	2.02	1.98	1.87
3	1.93	1.89	2.03	2.00	1.72	1.99	1.92
4	1.93	1.83	1.60	1.76	1.83	1.81	1.79
5	2.18	1.94	1.81	1.91	1.94	1.85	1.94
6	2.12	1.88	1.77	1.81	1.76	1.75	1.85
7	2.13	1.73	1.87	1.82	1.73	1.71	1.83
8	1.98	1.81	1.70	1.60	1.72	2.02	1.80
9	2.02	1.87	2.05	2.00	1.81	1.95	1.95
10	1.76	1.67	1.98	1.58	1.74	1.81	1.76
11	1.95	2.00	2.03	2.01	1.85	1.90	1.96
12	1.82	1.64	1.84	1.80	1.52	1.76	1.73
13	1.84	1.81	1.81	2.06	1.58	2.03	1.86
14	2.00	1.60	1.85	1.90	1.76	2.01	1.85
Average							1.856
Std. Dev.							0.070

MIT FOLD DATA

MIT Fold, log(10)N
Sample F Machine Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.80	1.88	1.83	1.89	1.79	1.91	1.85
2	1.85	1.83	1.90	2.04	1.91	1.92	1.91
3	1.91	2.04	2.04	1.81	2.01	2.05	1.98
4	1.88	2.08	1.98	1.95	2.05	1.88	1.97
5	1.86	1.89	1.93	1.91	2.03	1.83	1.91
6	2.06	2.03	1.90	1.79	1.90	2.02	1.95
7	1.94	1.63	1.72	1.91	1.97	1.97	1.86
8	1.98	1.97	1.88	2.13	1.91	1.99	1.98
9	1.87	1.94	1.83	1.81	2.08	1.99	1.92
10	1.77	1.84	1.95	2.02	2.04	1.88	1.92
11	1.84	1.93	2.03	1.92	1.83	2.04	1.93
12	1.78	1.86	1.85	1.85	1.72	1.85	1.82
13	1.90	1.87	1.88	1.83	1.93	1.93	1.89
14	1.95	2.00	1.76	1.94	2.03	1.92	1.93
Average							1.914
Std. Dev.							0.048

Sample F Machine Direction - Aged 17 Hours

1	1.70	1.61	1.73	1.79	1.63	1.72	1.70
2	1.72	1.79	1.70	1.75	1.78	1.56	1.71
3	1.76	1.76	1.76	1.85	1.79	1.66	1.76
4	1.79	1.80	1.86	1.79	1.91	1.79	1.82
5	1.85	1.86	1.87	1.79	1.93	1.79	1.85
6	1.57	1.54	1.86	1.76	1.77	1.75	1.71
7	1.76	1.76	1.80	1.73	1.67	1.75	1.75
8	1.97	1.68	1.75	1.43	1.76	1.79	1.73
9	1.86	1.76	1.86	1.69	1.60	1.72	1.75
10	1.85	1.92	1.49	1.83	1.85	1.79	1.79
11	1.76	1.63	1.66	1.89	1.89	1.76	1.77
12	1.79	1.71	1.79	1.85	1.79	1.79	1.78
13	1.87	1.62	1.81	1.84	1.73	1.95	1.80
14	1.88	1.74	1.81	1.89	1.86	1.79	1.83
Average							1.768
Std. Dev.							0.047

MIT FOLD DATA

MIT Fold, log(10)N
Sample F Machine Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.32	1.18	1.30	1.30	1.20	1.26	1.26
2	1.40	1.26	1.23	1.30	1.34	1.34	1.31
3	1.38	1.40	1.43	1.40	1.41	1.32	1.39
4	1.45	1.28	1.36	1.46	1.18	1.32	1.34
5	1.48	1.52	1.52	1.51	1.54	1.45	1.50
6	1.59	1.41	1.36	1.45	1.51	1.46	1.46
7	1.36	1.30	1.38	1.36	1.34	1.38	1.35
8	1.38	1.52	1.48	1.52	1.46	1.32	1.45
9	1.43	1.36	1.34	1.49	1.40	1.34	1.39
10	1.43	1.57	1.41	1.54	1.46	1.40	1.47
11	1.48	1.46	1.53	1.57	1.54	1.36	1.49
12	1.52	1.49	1.41	1.43	1.41	1.36	1.44
13	1.58	1.46	1.52	1.41	1.41	1.41	1.47
14	1.40	1.48	1.40	1.48	1.45	1.38	1.43
Average							1.412
Std. Dev.							0.072

Sample F Machine Direction - Aged 168 hours

1	1.23	1.04	1.11	1.11	1.04	1.15	1.11
2	1.20	1.00	1.15	1.00	1.04	1.18	1.09
3	1.15	1.11	1.15	1.15	1.23	1.15	1.15
4	1.08	1.00	1.04	1.20	1.08	1.11	1.09
5	1.34	1.30	1.40	1.34	1.32	1.45	1.36
6	1.30	1.26	1.11	1.18	1.11	1.32	1.21
7	1.26	1.38	1.26	1.30	1.11	1.20	1.25
8	1.30	1.15	1.23	1.28	1.20	1.26	1.24
9	1.00	1.04	1.23	1.28	1.26	1.11	1.15
10	1.30	1.11	1.30	1.38	1.15	1.36	1.27
11	1.30	1.15	1.34	1.26	0.95	1.15	1.19
12	1.18	1.15	1.30	1.23	1.08	1.32	1.21
13	1.15	1.28	1.18	1.32	1.04	1.04	1.17
14	1.30	1.36	1.38	1.23	1.18	1.23	1.28
Average							1.198
Std. Dev.							0.077

MIT FOLD DATA

MIT Fold, log(10)N
Sample F Cross Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.28	1.41	1.41	1.30	1.38	1.20	1.33
2	1.20	1.38	1.28	1.18	1.43	1.18	1.27
3	1.41	1.36	1.36	1.40	1.48	1.30	1.39
4	1.30	1.46	1.23	1.36	1.59	1.38	1.39
5	1.38	1.28	1.46	1.43	1.30	1.30	1.36
6	1.20	1.30	1.59	1.28	1.23	1.30	1.32
7	1.38	1.32	1.34	1.32	1.32	1.36	1.34
8	1.38	1.32	1.46	1.36	1.30	1.28	1.35
9	1.34	1.30	1.26	1.30	1.26	1.26	1.29
10	1.30	1.38	1.30	1.26	1.30	1.30	1.31
11	1.34	1.32	1.32	1.26	1.34	1.20	1.30
12	1.34	1.32	1.28	1.28	1.28	1.20	1.28
13	1.26	1.20	1.34	1.38	1.34	1.36	1.31
14	1.28	1.32	1.34	1.26	1.36	1.23	1.30
Average							1.324
Std. Dev.							0.037

Sample F Cross Direction - Aged 17 hours

1	1.28	1.32	1.36	1.40	1.34	1.30	1.33
2	1.30	1.32	1.23	1.23	1.38	1.23	1.28
3	1.48	1.30	1.36	1.32	1.23	1.30	1.33
4	1.15	1.26	1.40	1.23	1.30	1.46	1.30
5	1.28	1.28	1.30	1.38	1.34	1.20	1.30
6	1.23	1.23	1.26	1.26	1.18	1.26	1.23
7	1.23	1.15	1.30	1.30	1.23	1.28	1.25
8	1.32	1.15	1.30	1.28	1.23	1.23	1.25
9	1.26	1.30	1.40	1.36	1.28	1.40	1.33
10	1.32	1.34	1.41	1.38	1.28	1.40	1.36
11	1.38	1.23	1.18	1.40	1.11	1.15	1.24
12	1.45	1.32	1.36	1.40	1.38	1.38	1.38
13	1.20	1.28	1.20	1.28	1.23	1.28	1.25
14	1.40	1.32	1.36	1.38	1.30	1.32	1.35
Average							1.299
Std. Dev.							0.049

MIT FOLD DATA

MIT Fold, log(10)N
Sample F Cross Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.11	1.08	1.08	1.00	1.00	1.04	1.05
2	1.18	0.95	1.04	1.11	1.04	1.15	1.08
3	1.08	1.00	1.08	1.08	1.11	1.18	1.09
4	1.15	1.04	1.08	1.15	1.00	1.11	1.09
5	1.04	1.20	1.15	1.18	1.18	1.26	1.17
6	1.20	1.20	1.23	1.26	1.11	1.18	1.20
7	1.18	1.04	1.15	1.11	1.00	1.11	1.10
8	1.18	1.00	1.18	1.18	1.23	1.30	1.18
9	1.15	1.15	1.11	1.18	1.11	1.15	1.14
10	1.08	1.04	1.20	1.23	1.18	1.20	1.16
11	1.23	1.08	1.04	1.18	1.11	1.15	1.13
12	1.11	1.15	1.08	1.18	1.20	1.15	1.14
13	1.18	1.11	1.15	1.20	1.08	1.20	1.15
14	1.18	1.15	1.20	1.18	1.08	1.18	1.16
Average							1.131
Std. Dev.							0.043

Sample F Cross Direction - Aged 168 hours

1	1.00	0.95	1.00	1.04	0.95	1.08	1.00
2	1.04	1.04	1.04	1.08	0.95	1.04	1.03
3	0.90	0.90	1.00	1.08	1.04	1.11	1.01
4	1.15	1.00	1.00	1.00	0.95	1.08	1.03
5	1.08	1.04	1.15	1.08	1.04	1.00	1.06
6	1.11	0.95	1.04	1.08	0.95	1.11	1.04
7	1.15	1.00	1.00	1.11	1.00	1.04	1.05
8	1.04	0.78	1.00	1.11	0.95	0.95	0.97
9	1.00	1.08	1.11	1.15	0.95	1.11	1.07
10	1.11	1.04	1.11	1.04	1.08	1.15	1.09
11	1.18	1.15	1.08	1.18	1.00	1.08	1.11
12	1.08	1.00	1.04	1.08	1.00	1.15	1.06
13	1.00	1.04	1.11	1.04	0.95	1.08	1.04
14	1.04	1.08	1.00	1.04	0.95	1.08	1.03
Average							1.043
Std. Dev.							0.035

MIT FOLD DATA

MIT Fold, log(10)N
Sample G Machine Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.91	1.54	1.91	1.67	1.89	1.96	1.82
2	1.72	1.61	1.71	1.79	1.72	1.74	1.72
3	1.75	1.66	1.81	1.79	1.76	1.85	1.77
4	1.92	1.89	1.80	1.79	1.85	1.76	1.83
5	2.05	1.92	1.81	1.90	1.79	2.01	1.91
6	1.76	1.82	1.82	1.65	1.82	1.85	1.79
7	1.77	1.72	1.78	1.81	1.64	1.85	1.76
8	1.81	1.83	1.85	1.83	1.82	1.56	1.78
9	2.00	1.86	1.86	2.06	1.92	1.74	1.91
10	1.73	1.86	1.92	1.93	1.76	1.77	1.83
11	1.74	1.81	1.77	1.83	1.92	1.71	1.80
12	1.57	1.52	1.79	1.68	1.72	1.66	1.66
13	1.69	1.79	1.59	1.82	1.87	1.86	1.77
14	1.80	1.62	1.80	1.49	1.93	1.85	1.75
Average							1.792
Std. Dev.							0.068

Sample G Machine Direction - Aged 17 Hours

1	2.01	1.69	1.85	1.60	1.85	1.52	1.75
2	1.81	1.67	1.70	1.41	1.86	1.77	1.71
3	1.71	1.46	1.51	1.66	1.94	1.91	1.70
4	1.74	1.90	1.95	1.79	1.93	1.92	1.87
5	1.86	1.91	1.86	1.76	1.79	1.97	1.86
6	1.85	1.54	1.72	1.84	1.72	1.75	1.74
7	1.70	1.38	1.81	1.73	1.77	1.72	1.69
8	1.53	1.64	1.74	1.69	1.65	1.88	1.69
9	1.75	1.86	1.74	1.79	1.76	1.56	1.74
10	1.83	1.46	1.77	1.88	1.87	1.60	1.74
11	1.77	1.72	1.78	1.86	1.53	1.67	1.72
12	1.76	1.76	1.62	1.65	1.72	1.78	1.72
13	1.86	1.79	1.62	1.88	1.78	1.92	1.81
14	1.68	1.70	1.76	1.72	1.83	1.78	1.75
Average							1.748
Std. Dev.							0.059

MIT FOLD DATA

MIT Fold, log(10)N
Sample G Machine Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.69	1.61	1.63	1.82	1.72	1.58	1.68
2	1.83	1.74	1.72	1.63	1.76	1.68	1.73
3	1.83	1.88	1.65	1.63	1.64	1.85	1.75
4	1.54	1.68	1.60	1.54	1.68	1.60	1.61
5	1.71	1.65	1.75	1.61	1.74	1.68	1.69
6	1.76	1.91	1.74	1.77	1.67	1.85	1.78
7	1.48	1.85	1.90	1.72	1.81	1.78	1.76
8	1.88	1.69	1.93	1.76	1.76	1.57	1.76
9	1.65	1.54	1.76	1.76	1.58	1.62	1.65
10	1.80	1.79	1.86	1.81	1.73	1.73	1.79
11	1.61	1.79	1.80	1.58	1.86	1.90	1.76
12	1.53	1.56	1.83	1.62	1.81	1.67	1.67
13	1.75	1.73	1.71	1.78	1.78	1.74	1.75
14	1.85	1.80	1.59	1.62	1.80	1.72	1.73
Average							1.721
Std. Dev.							0.053

Sample G Machine Direction - Aged 168 hours

1	1.64	1.69	1.72	1.83	1.64	1.65	1.70
2	1.84	1.72	1.72	1.68	1.64	1.88	1.75
3	1.46	1.67	1.63	1.83	1.76	1.87	1.70
4	1.73	1.83	1.65	1.69	1.74	1.77	1.74
5	1.67	1.72	1.74	1.66	1.87	1.79	1.74
6	1.66	1.77	1.72	1.85	1.56	1.84	1.73
7	1.61	1.63	1.72	1.69	1.81	1.53	1.67
8	1.76	1.76	1.58	1.81	1.75	1.60	1.71
9	1.77	1.80	1.59	1.60	1.75	1.68	1.70
10	1.90	1.73	1.70	1.61	1.91	1.73	1.76
11	1.80	1.82	1.74	1.92	1.81	1.72	1.80
12	1.80	1.74	1.56	1.62	1.75	1.80	1.71
13	1.56	1.70	1.77	1.79	1.73	1.67	1.70
14	1.63	1.74	1.69	1.86	1.78	1.81	1.75
Average							1.726
Std. Dev.							0.034

MIT FOLD DATA

MIT Fold, log(10)N
Sample G Cross Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.30	1.36	1.32	1.45	1.41	1.65	1.42
2	1.36	1.43	1.43	1.51	1.56	1.40	1.45
3	1.32	1.26	1.38	1.30	1.34	1.28	1.31
4	1.34	1.15	1.34	1.32	1.49	1.48	1.35
5	1.38	1.41	1.51	1.58	1.46	1.48	1.47
6	1.40	1.43	1.46	1.26	1.36	1.41	1.39
7	1.48	1.43	1.26	1.23	1.48	1.45	1.39
8	1.30	1.40	1.43	1.34	1.30	1.45	1.37
9	1.38	1.30	1.28	1.32	1.46	1.36	1.35
10	1.38	1.38	1.41	1.45	1.43	1.26	1.38
11	1.34	1.34	1.30	1.34	1.04	1.34	1.29
12	1.30	1.18	1.20	1.30	1.51	1.28	1.29
13	1.38	1.48	1.28	1.36	1.34	1.30	1.36
14	1.30	1.52	1.40	1.41	1.52	1.45	1.43
Average							1.375
Std. Dev.							0.055

Sample G Cross Direction - Aged 17 hours

1	1.23	1.34	1.36	1.26	1.28	1.34	1.30
2	1.49	1.45	1.32	1.51	1.32	1.30	1.40
3	1.45	1.51	1.41	1.41	1.41	1.46	1.44
4	1.51	1.53	1.45	1.52	1.49	1.30	1.47
5	1.49	1.48	1.57	1.56	1.40	1.49	1.50
6	1.38	1.43	1.45	1.54	1.36	1.41	1.43
7	1.57	1.56	1.49	1.49	1.41	1.51	1.50
8	1.38	1.36	1.28	1.36	1.18	1.32	1.31
9	1.28	1.28	1.32	1.26	1.40	1.32	1.31
10	1.38	1.46	1.56	1.45	1.38	1.46	1.45
11	1.40	1.41	1.52	1.41	1.41	1.46	1.44
12	1.30	1.26	1.30	1.30	1.36	1.36	1.31
13	1.49	1.32	1.38	1.36	1.46	1.34	1.39
14	1.28	1.53	1.41	1.38	1.36	1.36	1.39
Average							1.403
Std. Dev.							0.070

MIT FOLD DATA

MIT Fold, log(10)N
Sample G Cross Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.54	1.45	1.51	1.45	1.52	1.43	1.48
2	1.38	1.32	1.32	1.28	1.38	1.28	1.33
3	1.34	1.41	1.43	1.34	1.28	1.32	1.36
4	1.49	1.41	1.53	1.43	1.54	1.56	1.49
5	1.23	1.49	1.51	1.28	1.36	1.38	1.37
6	1.43	1.40	1.51	1.62	1.34	1.34	1.44
7	1.41	1.23	1.45	1.53	1.52	1.62	1.46
8	1.48	1.53	1.64	1.53	1.52	1.52	1.54
9	1.40	1.65	1.51	1.57	1.54	1.54	1.54
10	1.34	1.34	1.45	1.41	1.32	1.49	1.39
11	1.28	1.26	1.34	1.34	1.40	1.26	1.31
12	1.53	1.46	1.45	1.48	1.32	1.41	1.44
13	1.32	1.34	1.49	1.45	1.34	1.41	1.39
14	1.49	1.57	1.51	1.46	1.41	1.45	1.48
Average							1.431
Std. Dev.							0.073

Sample G Cross Direction - Aged 168 hours

1	1.40	1.51	1.66	1.46	1.34	1.51	1.48
2	1.32	1.28	1.40	1.46	1.40	1.41	1.38
3	1.41	1.23	1.26	1.28	1.23	1.34	1.29
4	1.40	1.28	1.41	1.46	1.30	1.34	1.37
5	1.41	1.49	1.43	1.43	1.40	1.45	1.44
6	1.34	1.45	1.28	1.34	1.32	1.32	1.34
7	1.23	1.36	1.40	1.46	1.32	1.41	1.36
8	1.48	1.18	1.38	1.36	1.46	1.60	1.41
9	1.49	1.40	1.36	1.45	1.52	1.54	1.46
10	1.38	1.43	1.54	1.51	1.51	1.51	1.48
11	1.30	1.41	1.26	1.30	1.30	1.34	1.32
12	1.40	1.36	1.36	1.30	1.36	1.34	1.35
13	1.46	1.49	1.56	1.57	1.48	1.59	1.52
14	1.45	1.23	1.36	1.46	1.32	1.30	1.35
Average							1.397
Std. Dev.							0.069

MIT FOLD DATA

MIT Fold, log(10)N
Sample H Machine Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.65	2.76	2.66	2.72	2.75	2.85	2.73
2	2.76	2.40	2.66	2.71	2.51	2.81	2.64
3	2.75	2.79	2.88	2.78	2.73	2.67	2.77
4	2.70	2.72	2.71	2.68	2.74	2.77	2.72
5	2.85	2.71	2.76	2.51	2.71	2.79	2.72
6	2.70	2.84	2.61	2.73	2.70	2.68	2.71
7	2.57	2.73	2.84	2.87	2.61	2.74	2.73
8	2.70	2.66	2.86	2.61	2.84	2.66	2.72
9	2.66	2.62	2.47	2.60	2.69	2.75	2.63
10	2.85	2.67	2.82	2.67	2.73	2.62	2.73
11	2.62	2.47	2.78	2.70	2.78	2.82	2.69
12	2.59	2.82	2.78	2.64	2.77	2.62	2.70
13	2.83	2.75	2.72	2.63	2.62	2.58	2.69
14	2.60	2.55	2.37	2.84	2.63	2.64	2.61
Average							2.699
Std. Dev.							0.044

Sample H Machine Direction - Aged 17 Hours

1	2.67	2.66	2.70	2.79	2.59	2.51	2.65
2	2.70	2.67	2.62	2.68	2.81	2.60	2.68
3	2.73	2.68	2.62	2.66	2.69	2.59	2.66
4	2.53	2.71	2.75	2.74	2.56	2.65	2.66
5	2.61	2.68	2.63	2.51	2.60	2.71	2.62
6	2.41	2.71	2.67	2.72	2.64	2.69	2.64
7	2.74	2.63	2.51	2.72	2.51	2.54	2.61
8	2.46	2.58	2.45	2.51	2.58	2.63	2.53
9	2.58	2.62	2.52	2.70	2.52	2.71	2.61
10	2.64	2.65	2.71	2.77	2.75	2.64	2.69
11	2.71	2.77	2.50	2.53	2.57	2.60	2.61
12	2.52	2.71	2.21	2.60	2.56	2.33	2.49
13	2.53	2.56	2.64	2.80	2.53	2.53	2.60
14	2.67	2.74	2.57	2.53	2.67	2.60	2.63
Average							2.621
Std. Dev.							0.055

MIT FOLD DATA

MIT Fold, log(10)N
Sample H Machine Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.42	2.58	2.43	2.46	2.37	2.05	2.38
2	2.36	2.53	2.38	2.59	2.43	2.49	2.46
3	2.33	2.29	2.36	2.46	2.58	2.28	2.38
4	2.41	2.10	2.33	2.29	2.56	2.14	2.31
5	2.41	2.31	2.45	2.42	2.40	2.40	2.40
6	2.32	2.35	2.54	2.48	2.51	2.31	2.42
7	2.35	2.20	2.41	2.43	2.31	2.15	2.31
8	2.29	2.16	2.23	2.56	2.44	2.45	2.36
9	2.32	2.53	2.40	2.12	2.36	2.18	2.32
10	2.25	2.47	2.46	2.36	2.21	2.37	2.35
11	2.13	2.31	2.32	2.42	2.28	2.40	2.31
12	2.31	2.16	1.93	2.36	2.42	2.33	2.25
13	2.62	2.34	2.09	2.62	2.42	2.56	2.44
14	2.49	2.40	2.27	2.52	2.57	2.29	2.42
Average							2.365
Std. Dev.							0.061

Sample H Machine Direction - Aged 168 hours

1	2.44	2.29	2.03	2.25	2.35	2.30	2.28
2	2.26	2.17	2.02	2.34	2.26	2.28	2.22
3	2.25	2.26	2.28	2.26	2.39	2.20	2.28
4	2.01	2.53	2.12	2.18	2.31	1.66	2.13
5	2.23	1.96	2.17	2.20	1.80	2.28	2.11
6	2.11	2.37	2.05	2.24	1.95	2.25	2.16
7	2.34	2.32	2.32	2.26	2.07	2.18	2.25
8	2.17	2.23	2.34	1.88	2.16	2.13	2.15
9	2.40	1.86	2.35	2.45	2.37	2.22	2.28
10	2.28	2.19	2.31	2.32	2.31	2.28	2.28
11	2.29	1.87	2.20	2.35	2.00	1.89	2.10
12	2.12	1.96	2.08	2.10	2.16	2.06	2.08
13	2.19	2.14	1.92	1.73	2.09	1.92	2.00
14	2.13	2.14	2.18	2.04	2.19	1.57	2.04
Average							2.168
Std. Dev.							0.096

MIT FOLD DATA

MIT Fold, log(10)N
Sample H Cross Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.21	2.06	2.39	2.06	2.12	2.40	2.21
2	2.52	2.17	2.30	2.31	1.66	1.80	2.13
3	2.48	2.42	2.40	2.28	2.48	1.92	2.33
4	2.24	2.28	2.03	2.25	2.29	2.30	2.23
5	2.15	2.38	2.36	2.30	2.21	2.17	2.26
6	2.29	2.07	2.35	2.27	2.35	1.99	2.22
7	2.37	2.48	2.51	2.34	2.38	2.17	2.37
8	2.41	2.28	2.33	2.12	2.29	2.43	2.31
9	2.28	2.27	2.16	2.33	2.55	2.37	2.33
10	2.41	2.47	2.24	2.25	2.43	2.13	2.32
11	2.32	2.17	2.29	2.30	2.18	2.38	2.27
12	2.37	2.39	2.42	2.40	2.37	2.44	2.40
13	2.13	2.47	2.16	2.48	2.52	2.43	2.36
14	2.24	2.24	2.23	2.20	2.24	2.30	2.24
Average							2.285
Std. Dev.							0.075

Sample H Cross Direction - Aged 17 hours

1	2.18	2.37	2.16	2.26	2.42	2.37	2.29
2	2.16	2.37	2.13	2.19	2.21	2.18	2.21
3	2.05	2.18	2.28	2.31	2.29	2.32	2.24
4	2.08	2.26	2.14	2.18	2.41	2.39	2.24
5	2.20	2.21	2.38	2.40	2.34	2.41	2.32
6	2.06	2.42	2.26	2.35	2.33	2.18	2.27
7	2.30	2.57	2.22	2.06	1.85	2.10	2.18
8	2.26	2.22	2.46	2.24	2.51	2.29	2.33
9	2.40	2.30	2.26	2.44	2.48	2.51	2.40
10	2.16	2.18	2.22	2.02	2.37	2.41	2.23
11	2.01	2.08	2.12	2.19	2.22	2.31	2.16
12	2.32	2.18	2.15	2.25	2.21	2.13	2.21
13	1.91	1.90	2.02	1.93	1.68	1.81	1.87
14	2.34	2.35	2.38	2.34	2.44	2.35	2.37
Average							2.237
Std. Dev.							0.126

MIT FOLD DATA

MIT Fold, log(10)N
Sample H Cross Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.89	2.00	1.96	1.67	1.83	2.09	1.91
2	1.75	1.98	2.19	2.14	1.90	2.05	2.00
3	2.24	2.11	1.92	1.88	2.11	1.97	2.04
4	2.16	2.23	1.99	2.03	1.99	2.20	2.10
5	1.83	2.06	1.81	1.72	1.99	1.95	1.89
6	1.62	2.06	2.26	2.20	2.24	2.10	2.08
7	1.79	2.14	2.22	2.17	2.23	2.21	2.13
8	2.23	2.23	2.06	2.07	2.18	2.05	2.14
9	1.96	1.88	1.92	1.80	2.07	2.07	1.95
10	1.80	2.12	2.00	2.02	1.76	1.69	1.90
11	1.65	1.79	2.00	2.06	1.83	1.93	1.88
12	1.78	1.75	2.19	2.10	1.93	2.15	1.98
13	1.95	2.25	2.02	2.21	2.16	2.05	2.11
14	2.18	2.26	2.12	1.85	1.86	2.10	2.06
Average							2.011
Std. Dev.							0.094

Sample H Cross Direction - Aged 168 hours

1	1.92	2.05	1.94	2.12	1.94	1.83	1.97
2	1.63	1.61	1.59	1.59	1.57	1.92	1.65
3	1.79	1.86	1.78	1.72	1.93	1.81	1.81
4	1.99	1.95	2.00	2.04	2.18	2.05	2.04
5	1.57	1.66	1.64	1.65	2.03	1.99	1.76
6	1.89	2.16	1.91	2.01	1.70	2.04	1.95
7	1.86	1.86	1.74	1.57	1.97	1.49	1.75
8	1.81	1.94	2.03	1.64	1.43	1.73	1.77
9	1.66	1.91	1.98	1.94	1.70	2.02	1.87
10	1.62	1.59	1.77	1.93	1.70	1.97	1.76
11	1.89	2.12	1.97	1.87	2.28	1.96	2.02
12	1.60	1.72	1.61	1.89	1.91	1.56	1.72
13	2.01	1.88	1.73	2.16	2.25	2.04	2.01
14	1.76	2.16	2.21	1.72	1.99	1.97	1.97
Average							1.860
Std. Dev.							0.129

MIT FOLD DATA

MIT Fold, log(10)N
Sample I Machine Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.26	2.56	2.28	2.51	2.44	2.63	2.45
2	2.40	2.36	2.52	2.05	2.21	2.52	2.34
3	2.78	2.56	2.46	2.57	2.56	2.46	2.56
4	2.40	2.40	2.33	2.32	2.30	2.19	2.32
5	2.47	2.36	2.53	2.54	2.50	2.58	2.50
6	2.48	2.33	2.28	2.31	2.46	2.48	2.39
7	2.52	2.32	2.63	2.66	2.52	2.49	2.52
8	2.21	2.37	2.23	2.35	2.29	2.43	2.31
9	2.39	2.18	2.57	2.46	2.60	2.59	2.46
10	2.34	2.32	2.00	2.55	2.46	2.32	2.33
11	2.43	2.00	2.43	2.51	2.67	2.48	2.42
12	2.26	2.26	2.00	2.26	2.46	2.31	2.26
13	2.22	2.48	2.49	2.40	2.58	2.54	2.45
14	2.37	2.58	2.51	2.59	2.40	2.45	2.48
Average							2.415
Std. Dev.							0.090

Sample I Machine Direction - Aged 17 Hours

1	2.14	2.10	1.88	2.49	2.29	2.48	2.23
2	1.96	2.38	2.29	2.40	2.29	2.27	2.26
3	2.47	2.32	2.61	2.47	2.26	2.41	2.42
4	2.14	2.50	2.00	2.15	2.48	2.48	2.29
5	2.48	2.28	1.83	2.37	2.46	2.67	2.35
6	2.47	2.22	2.24	2.01	2.19	2.41	2.26
7	2.26	2.59	2.43	2.52	2.68	2.62	2.52
8	2.21	2.17	2.17	2.20	2.37	2.61	2.29
9	2.18	2.36	2.33	2.42	2.05	1.85	2.20
10	2.02	1.95	2.24	2.47	2.27	2.32	2.21
11	2.49	2.55	2.21	2.35	2.42	2.23	2.38
12	2.35	2.16	2.56	1.90	2.46	2.41	2.31
13	2.52	2.34	2.33	2.52	2.65	2.16	2.42
14	2.29	2.34	2.02	2.24	1.85	2.05	2.13
Average							2.305
Std. Dev.							0.104

MIT FOLD DATA

MIT Fold, log(10)N
Sample I Machine Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.28	2.28	2.16	2.18	2.16	2.14	2.20
2	2.27	2.41	2.46	2.44	2.51	2.36	2.41
3	2.36	2.27	2.43	2.27	2.13	2.19	2.28
4	2.46	2.34	1.91	2.51	2.55	2.49	2.38
5	2.11	2.33	2.18	2.18	2.03	2.21	2.17
6	1.59	2.09	2.46	2.47	2.33	2.47	2.23
7	2.14	2.34	2.25	2.42	2.22	2.23	2.27
8	2.59	2.21	2.16	2.46	2.26	2.27	2.32
9	2.29	2.33	2.22	2.04	2.14	2.07	2.18
10	2.25	2.22	2.16	2.42	2.47	2.49	2.33
11	2.38	2.36	2.56	2.27	2.41	2.42	2.40
12	2.40	2.28	2.52	2.17	2.41	2.16	2.32
13	2.39	2.16	2.11	2.26	2.00	2.25	2.20
14	2.25	2.20	2.31	2.41	2.23	2.25	2.28
Average							2.284
Std. Dev.							0.081

Sample I Machine Direction - Aged 168 hours

1	2.59	2.20	2.39	2.37	2.31	1.98	2.31
2	2.40	2.00	2.28	2.23	2.31	2.48	2.28
3	2.22	2.23	2.01	2.20	2.18	2.36	2.20
4	2.09	2.39	2.50	2.09	1.82	2.02	2.15
5	2.40	2.38	2.05	2.28	2.23	2.18	2.25
6	2.27	2.26	2.44	2.41	1.95	2.47	2.30
7	2.24	2.43	2.00	2.24	2.12	1.98	2.17
8	2.31	2.44	2.31	2.39	2.36	2.31	2.35
9	2.09	2.36	1.93	2.39	2.36	2.24	2.23
10	2.31	2.54	2.60	2.67	2.04	2.47	2.44
11	2.27	2.13	2.00	2.23	2.19	2.37	2.20
12	1.97	2.27	2.55	2.40	2.58	2.25	2.34
13	2.29	2.06	2.43	2.22	2.33	2.16	2.25
14	2.37	2.39	2.40	2.31	2.38	2.46	2.39
Average							2.275
Std. Dev.							0.084

MIT FOLD DATA

MIT Fold, log(10)N
Sample I Cross Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.91	1.81	2.00	1.94	1.88	1.92	1.91
2	1.79	1.83	1.74	1.81	2.07	1.89	1.86
3	2.11	2.15	2.25	1.92	1.84	2.00	2.04
4	2.17	2.28	2.35	2.39	2.41	2.18	2.30
5	2.08	1.87	1.79	1.91	1.88	1.95	1.91
6	1.90	1.94	2.02	2.15	2.03	2.01	2.01
7	2.09	2.07	2.17	2.33	2.29	2.37	2.22
8	1.70	1.73	1.88	1.88	1.91	2.06	1.86
9	1.97	2.10	2.12	2.24	2.39	2.29	2.19
10	2.21	2.11	2.28	2.28	2.18	1.95	2.17
11	2.04	1.83	1.80	1.94	1.87	1.83	1.89
12	1.95	1.88	1.99	1.91	1.73	1.81	1.88
13	2.03	2.10	2.40	2.35	2.33	2.07	2.21
14	2.17	2.12	2.08	2.12	2.18	2.16	2.14
Average							2.042
Std. Dev.							0.159

Sample I Cross Direction - Aged 17 hours

1	2.24	1.95	1.62	1.92	1.94	1.92	1.93
2	1.84	1.76	1.77	1.71	1.79	1.86	1.79
3	1.77	2.04	2.04	1.92	1.97	1.97	1.95
4	1.82	1.95	1.79	1.93	1.76	2.08	1.89
5	1.89	2.03	1.93	1.79	2.04	1.98	1.95
6	1.77	1.94	1.70	1.89	2.08	1.62	1.83
7	2.21	2.07	1.96	1.98	1.73	1.91	1.98
8	2.15	2.16	2.30	2.06	1.99	2.08	2.12
9	2.16	2.06	1.99	1.62	1.52	1.62	1.83
10	1.83	1.86	1.97	2.05	2.15	2.30	2.03
11	1.59	1.68	1.92	2.14	2.00	1.96	1.88
12	2.07	1.83	1.93	2.16	1.77	1.78	1.92
13	1.98	2.08	2.00	2.12	2.01	1.92	2.02
14	1.94	1.34	1.76	2.03	1.76	1.84	1.78
Average							1.922
Std. Dev.							0.097

MIT FOLD DATA

MIT Fold, log(10)N
Sample I Cross Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.57	1.54	1.56	1.73	1.57	1.72	1.61
2	1.95	1.79	1.62	1.69	1.81	1.63	1.75
3	1.63	2.00	1.79	1.89	1.84	1.83	1.83
4	1.78	1.86	1.78	1.68	2.00	2.05	1.86
5	1.86	1.97	1.79	1.89	1.95	1.71	1.86
6	1.83	1.86	1.85	1.86	1.88	1.76	1.84
7	1.75	1.92	2.00	1.77	1.77	1.73	1.83
8	2.09	1.96	2.00	1.81	1.88	2.03	1.96
9	1.59	1.72	1.69	1.71	1.76	1.56	1.67
10	1.85	1.76	1.89	1.89	1.81	1.79	1.83
11	2.20	2.04	1.90	2.09	1.92	1.84	2.00
12	2.12	2.07	2.17	2.20	1.94	2.10	2.10
13	1.59	1.81	1.75	1.82	1.88	1.80	1.77
14	1.84	1.79	1.72	1.90	1.58	1.85	1.78
Average							1.835
Std. Dev.							0.125

Sample I Cross Direction - Aged 168 hours

1	1.76	1.76	1.71	1.59	1.46	1.63	1.65
2	2.06	2.09	1.81	1.91	2.10	1.83	1.97
3	1.66	1.64	1.67	1.70	1.63	1.72	1.67
4	1.86	1.79	1.67	1.82	1.86	1.75	1.79
5	1.74	1.77	1.57	2.19	2.03	1.96	1.88
6	1.83	1.66	1.69	1.98	2.27	2.16	1.93
7	1.79	1.71	1.99	1.61	1.93	1.62	1.78
8	1.79	1.82	1.65	1.59	1.77	1.79	1.74
9	1.78	1.85	1.83	1.75	2.15	1.76	1.85
10	1.94	1.73	1.72	1.90	1.93	2.06	1.88
11	1.79	1.77	1.57	1.77	1.65	1.72	1.71
12	1.90	2.02	1.94	1.41	1.84	1.92	1.84
13	1.90	1.61	1.76	1.89	1.95	1.79	1.82
14	1.54	1.88	1.78	2.13	1.87	2.10	1.88
Average							1.813
Std. Dev.							0.095

MIT FOLD DATA

MIT Fold, log(10)N
Sample J Machine Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.79	2.69	2.80	2.76	2.66	2.72	2.74
2	2.75	2.48	2.76	2.65	2.86	2.71	2.70
3	2.62	2.75	2.82	2.69	2.69	2.76	2.72
4	2.75	2.73	2.75	2.64	2.61	2.86	2.72
5	2.70	2.55	2.73	2.68	2.49	2.66	2.63
6	2.76	2.77	2.71	2.71	2.70	2.54	2.70
7	2.48	2.73	2.78	2.61	2.76	2.51	2.64
8	2.85	2.81	2.72	2.85	2.74	2.46	2.74
9	2.74	2.77	2.60	2.79	2.78	2.46	2.69
10	2.75	2.49	2.64	2.74	2.52	2.16	2.55
11	2.69	2.71	2.67	2.73	2.60	2.69	2.68
12	2.88	2.78	2.78	2.80	2.57	2.81	2.77
13	2.86	2.71	2.78	2.81	2.75	2.73	2.77
14	2.68	2.52	2.74	2.75	2.67	2.47	2.64
Average							2.693
Std. Dev.							0.060

Sample J Machine Direction - Aged 17 Hours

1	2.54	2.07	2.17	2.59	2.49	2.52	2.40
2	2.33	2.63	2.67	2.67	2.63	2.59	2.59
3	2.72	2.69	2.72	2.52	2.46	2.58	2.61
4	2.58	2.63	2.14	2.63	2.54	2.63	2.53
5	2.61	2.45	2.66	2.61	2.72	2.47	2.59
6	2.73	2.38	2.33	2.65	2.62	2.65	2.56
7	2.49	2.65	2.60	2.39	2.62	2.70	2.58
8	2.56	2.59	2.69	2.52	2.50	2.69	2.59
9	2.49	2.52	2.59	2.39	2.61	2.71	2.55
10	2.86	2.57	2.52	2.60	2.64	2.70	2.65
11	2.74	2.64	2.68	2.59	2.69	2.68	2.67
12	2.71	2.67	2.72	2.72	2.64	2.50	2.66
13	2.61	2.71	2.63	2.73	2.50	2.64	2.64
14	2.66	2.71	2.65	2.71	2.48	2.48	2.61
Average							2.587
Std. Dev.							0.069

MIT FOLD DATA

MIT Fold, log(10)N
Sample J Machine Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.44	2.71	2.58	2.47	2.38	2.62	2.53
2	2.56	2.13	2.57	2.44	2.43	2.65	2.46
3	2.52	2.64	2.27	2.24	1.79	2.55	2.34
4	2.57	2.48	2.10	2.59	2.41	2.43	2.43
5	2.59	2.65	2.20	2.64	2.42	2.48	2.50
6	2.46	2.17	2.67	2.57	2.30	2.55	2.45
7	2.58	2.63	2.47	2.37	2.47	2.42	2.49
8	2.37	2.57	2.68	2.56	2.23	2.35	2.46
9	2.64	2.54	2.61	2.63	2.64	2.49	2.59
10	2.48	2.49	2.63	2.03	2.54	2.47	2.44
11	2.35	2.54	2.15	1.76	2.40	2.49	2.28
12	2.05	2.61	2.55	1.87	2.54	2.61	2.37
13	2.18	2.33	2.48	2.35	2.56	2.13	2.34
14	2.16	2.19	2.44	2.26	1.97	2.20	2.20
Average							2.420
Std. Dev.							0.104

Sample J Machine Direction - Aged 168 hours

1	2.31	2.55	2.42	2.45	2.56	2.34	2.44
2	2.36	2.45	2.16	2.49	2.57	2.52	2.43
3	2.49	2.59	2.39	2.52	2.52	2.48	2.50
4	2.55	2.56	2.02	2.62	2.54	2.28	2.43
5	2.18	2.42	2.47	2.50	2.13	2.47	2.36
6	2.54	2.51	2.47	2.54	2.39	2.24	2.45
7	2.53	2.48	2.43	2.47	2.47	2.37	2.46
8	2.43	2.39	2.44	2.37	2.49	2.61	2.46
9	2.39	2.38	2.48	2.45	2.40	2.50	2.43
10	2.33	2.43	2.43	2.62	2.41	2.54	2.46
11	2.71	2.41	2.53	2.53	2.45	2.35	2.50
12	2.37	2.58	2.32	2.56	2.70	2.55	2.51
13	2.63	2.16	2.53	2.41	2.25	2.67	2.44
14	2.49	2.54	2.50	2.22	2.25	2.60	2.43
Average							2.450
Std. Dev.							0.037

MIT FOLD DATA

MIT Fold, log(10)N
Sample J Cross Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.89	2.11	2.14	1.75	2.05	2.25	2.03
2	2.05	2.16	2.26	2.11	1.90	1.97	2.07
3	2.06	1.72	1.85	2.00	2.01	1.95	1.93
4	2.10	1.91	1.94	2.34	2.16	2.01	2.08
5	2.20	1.81	1.90	1.79	1.92	1.72	1.89
6	1.97	1.89	2.08	1.97	1.89	1.85	1.94
7	2.29	2.21	2.43	2.20	1.98	2.01	2.19
8	2.02	2.22	2.03	1.92	1.92	2.06	2.03
9	2.26	2.20	2.06	2.21	2.01	2.25	2.17
10	1.94	1.93	1.86	1.95	1.84	1.85	1.90
11	1.86	2.09	1.98	1.90	1.83	1.96	1.94
12	1.95	2.10	1.99	1.90	2.00	2.15	2.01
13	2.15	1.89	1.90	1.94	1.72	2.08	1.95
14	1.96	2.27	2.19	1.95	2.23	2.21	2.14
Average							2.019
Std. Dev.							0.100

Sample J Cross Direction - Aged 17 hours

1	1.85	1.79	1.94	2.16	1.98	1.67	1.90
2	2.04	1.92	1.81	2.05	1.89	1.96	1.95
3	1.93	2.22	2.22	2.27	1.89	2.20	2.12
4	2.08	2.29	1.98	2.11	2.04	2.32	2.14
5	2.06	2.22	2.23	2.18	2.24	2.10	2.17
6	2.00	1.81	1.97	1.90	2.03	2.01	1.95
7	1.96	1.98	1.71	2.05	1.78	1.85	1.89
8	1.93	2.11	2.13	2.26	2.28	2.20	2.15
9	1.85	1.99	2.09	2.25	2.22	1.88	2.05
10	1.97	2.08	2.17	2.35	1.63	1.80	2.00
11	2.26	1.72	1.74	1.97	2.00	1.87	1.93
12	1.83	2.07	1.90	1.94	1.83	1.79	1.89
13	2.07	1.82	1.52	2.11	1.84	1.96	1.89
14	2.05	2.31	2.00	1.61	2.00	1.88	1.97
Average							2.000
Std. Dev.							0.106

MIT FOLD DATA

MIT Fold, log(10)N
Sample J Cross Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.17	1.98	1.77	2.07	1.94	1.80	1.96
2	1.60	1.92	1.85	1.75	1.79	1.88	1.80
3	1.73	1.99	1.86	1.89	1.91	1.79	1.86
4	2.30	2.36	2.11	2.17	1.92	1.85	2.12
5	1.70	2.29	1.81	2.04	2.03	2.11	2.00
6	1.98	2.03	1.93	1.94	2.06	1.91	1.98
7	2.21	1.56	1.91	1.97	1.91	1.93	1.92
8	1.79	1.97	1.85	1.87	1.99	2.01	1.91
9	1.86	1.86	1.81	1.56	1.94	1.68	1.78
10	1.89	1.70	1.92	1.79	1.81	1.54	1.78
11	1.96	1.74	1.86	2.15	2.16	2.06	1.99
12	1.98	2.17	1.90	1.79	2.04	1.99	1.98
13	1.87	1.69	2.00	1.82	1.94	1.93	1.88
14	1.70	1.90	1.96	2.00	1.75	1.73	1.84
Average							1.913
Std. Dev.							0.098

Sample J Cross Direction - Aged 168 hours

1	2.31	2.19	1.86	1.93	2.01	2.12	2.07
2	1.74	1.84	1.67	1.81	1.79	1.76	1.77
3	1.88	2.16	1.75	1.80	1.67	1.81	1.85
4	1.64	1.57	1.69	2.07	1.98	1.66	1.77
5	1.60	1.60	1.75	1.93	1.63	1.79	1.72
6	1.79	1.65	1.74	1.91	2.03	1.62	1.79
7	1.92	1.59	1.71	2.01	1.81	1.76	1.80
8	1.82	1.28	1.75	1.61	1.86	1.78	1.68
9	1.94	1.86	1.98	1.79	1.72	1.62	1.82
10	1.80	1.99	1.86	2.07	1.92	1.83	1.91
11	1.77	2.08	1.94	1.93	1.53	2.07	1.89
12	2.15	1.66	1.76	1.69	1.85	1.61	1.79
13	1.86	1.26	1.28	1.96	1.61	1.46	1.57
14	1.73	1.66	1.76	1.61	1.83	1.72	1.72
Average							1.796
Std. Dev.							0.116

MIT FOLD DATA

MIT Fold, log(10)N
Sample K Machine Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.69	1.54	1.72	1.58	1.62	1.58	1.62
2	2.02	1.95	2.22	2.10	2.07	1.81	2.03
3	2.22	1.87	1.77	2.17	1.87	1.91	1.97
4	1.78	1.88	1.73	1.73	1.57	1.65	1.72
5	2.08	2.19	2.09	2.00	2.20	1.95	2.09
6	2.05	1.77	2.17	1.61	1.56	1.86	1.84
7	1.85	1.64	1.79	1.65	1.73	2.10	1.79
8	2.06	1.86	1.68	1.93	1.95	1.56	1.84
9	1.70	1.74	1.28	1.68	2.12	2.08	1.77
10	1.94	1.98	1.65	1.89	1.64	2.03	1.86
11	1.98	1.40	1.40	2.21	2.14	1.93	1.84
12	1.95	1.73	1.76	1.95	2.24	1.99	1.94
13	1.90	2.07	2.06	1.80	1.71	1.99	1.92
14	1.90	1.76	1.59	1.76	1.76	1.65	1.74
Average							1.855
Std. Dev.							0.125

Sample K Machine Direction - Aged 17 Hours

1	1.57	1.85	1.70	2.00	2.01	1.93	1.84
2	1.51	1.73	1.63	1.49	1.65	1.76	1.63
3	1.48	1.81	1.85	1.40	1.61	1.98	1.69
4	1.59	1.97	1.70	2.11	1.71	1.45	1.75
5	1.84	2.18	1.79	1.90	1.72	1.65	1.85
6	1.79	1.40	1.52	1.82	1.57	1.58	1.61
7	1.62	1.61	1.38	1.76	1.70	1.70	1.63
8	1.51	1.74	1.78	1.51	1.59	1.69	1.64
9	1.86	2.11	1.52	1.26	1.93	1.65	1.72
10	1.40	1.81	2.12	1.81	1.71	1.84	1.78
11	1.68	1.94	1.80	1.94	1.65	1.66	1.78
12	1.66	1.59	1.84	1.78	1.94	1.83	1.77
13	1.66	1.76	1.65	1.92	1.79	1.63	1.74
14	1.58	1.87	2.13	1.84	2.00	2.18	1.93
Average							1.740
Std. Dev.							0.096

MIT FOLD DATA

MIT Fold, log(10)N
Sample K Machine Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.32	1.61	1.60	1.77	1.61	1.72	1.61
2	1.49	1.78	1.67	1.41	1.08	1.59	1.50
3	1.26	1.18	1.63	1.49	1.79	1.89	1.54
4	1.60	1.71	1.66	1.61	1.74	2.09	1.74
5	1.64	1.49	1.63	1.66	1.68	1.51	1.60
6	1.48	1.95	1.43	1.53	1.45	1.58	1.57
7	1.95	1.90	2.17	1.58	1.81	1.56	1.83
8	1.79	1.46	2.00	1.92	1.86	1.56	1.76
9	1.69	1.89	1.77	1.53	1.48	1.82	1.70
10	1.43	1.52	1.60	1.46	1.26	1.59	1.48
11	1.41	1.83	1.75	1.79	2.08	1.69	1.76
12	1.60	1.18	1.54	1.65	1.73	1.93	1.61
13	1.95	1.36	1.60	1.69	1.51	1.51	1.60
14	1.66	1.65	1.58	1.34	1.80	1.60	1.61
Average							1.635
Std. Dev.							0.105

Sample K Machine Direction - Aged 168 hours

1	1.63	1.15	1.26	1.72	1.62	1.83	1.53
2	1.57	1.23	1.38	1.43	1.67	1.73	1.50
3	1.40	1.63	1.49	1.61	1.87	1.90	1.65
4	1.43	1.64	1.90	1.86	1.77	1.80	1.73
5	2.09	1.92	1.90	2.00	2.00	1.69	1.93
6	1.89	2.05	1.87	1.88	2.06	1.90	1.94
7	1.49	1.68	1.56	1.85	1.96	1.48	1.67
8	2.19	1.66	1.59	1.86	1.76	1.68	1.79
9	1.90	1.73	1.58	1.92	1.99	1.74	1.81
10	1.91	1.59	1.59	1.74	1.92	1.54	1.72
11	1.62	1.53	1.49	1.83	1.83	1.40	1.62
12	1.59	1.58	1.28	1.52	1.60	1.77	1.56
13	2.07	1.60	1.78	1.90	1.65	2.15	1.86
14	1.67	1.90	1.41	1.53	1.75	1.71	1.66
Average							1.713
Std. Dev.							0.140

MIT FOLD DATA

MIT Fold, log(10)N
Sample K Cross Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.31	2.04	2.29	2.12	2.28	2.16	2.20
2	2.33	2.12	2.18	2.41	2.29	2.32	2.28
3	1.96	2.08	2.22	2.04	2.25	2.28	2.14
4	1.93	2.13	2.11	2.32	2.45	2.30	2.21
5	2.09	1.94	1.94	2.24	2.12	2.22	2.09
6	2.37	2.37	2.23	2.26	1.94	1.95	2.19
7	2.24	2.15	2.07	1.89	1.70	2.18	2.04
8	2.19	2.06	2.40	2.01	2.06	2.18	2.15
9	2.35	2.18	2.25	2.08	2.22	2.03	2.18
10	2.38	2.21	2.16	2.14	2.17	2.11	2.20
11	2.28	2.29	2.29	2.06	2.15	2.19	2.21
12	2.10	2.31	2.00	2.04	1.92	1.96	2.05
13	2.10	2.07	2.20	1.91	1.88	2.04	2.03
14	2.31	2.14	2.07	2.19	2.27	2.29	2.21
Average							2.156
Std. Dev.							0.075

Sample K Cross Direction - Aged 17 hours

1	2.05	2.29	2.21	2.14	1.94	1.98	2.10
2	2.34	2.11	2.02	2.26	2.29	2.21	2.20
3	1.96	2.16	2.23	2.32	2.11	2.36	2.19
4	1.96	2.24	2.31	2.17	2.00	2.35	2.17
5	2.07	2.12	2.31	2.08	2.11	2.31	2.17
6	1.94	2.19	2.23	2.00	2.03	2.29	2.11
7	2.08	2.11	2.00	2.30	2.00	2.01	2.08
8	2.18	2.20	2.06	2.20	2.24	1.92	2.13
9	2.32	2.16	1.71	2.33	2.37	1.96	2.14
10	2.39	2.41	2.27	2.32	2.42	2.08	2.32
11	1.87	2.03	2.22	2.29	2.31	2.06	2.13
12	2.31	2.12	2.19	2.03	2.16	2.19	2.17
13	1.90	2.29	2.18	2.28	2.28	2.34	2.21
14	2.04	2.20	2.15	2.25	2.18	1.98	2.13
Average							2.162
Std. Dev.							0.059

MIT FOLD DATA

MIT Fold, log(10)N
Sample K Cross Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.02	2.30	2.33	1.93	1.98	1.91	2.08
2	2.05	2.11	2.03	2.12	1.85	2.06	2.04
3	2.03	2.03	1.88	2.09	2.13	2.09	2.04
4	2.19	1.85	2.14	2.22	2.08	1.98	2.08
5	1.99	2.03	1.98	1.96	2.24	2.12	2.06
6	2.04	1.96	2.00	1.92	2.11	2.25	2.04
7	1.99	1.92	1.89	2.09	2.03	1.86	1.96
8	2.22	1.86	2.21	1.85	2.08	2.10	2.05
9	1.88	1.81	1.91	2.01	2.10	2.03	1.96
10	2.42	2.16	2.06	2.13	1.98	2.15	2.15
11	1.76	1.88	1.75	2.05	1.99	2.10	1.92
12	1.97	2.19	1.81	2.23	1.95	1.94	2.02
13	1.97	1.99	1.99	1.97	1.99	1.71	1.94
14	2.23	2.13	2.10	2.19	2.20	2.12	2.16
Average							2.035
Std. Dev.							0.073

Sample K Cross Direction - Aged 168 hours

1	2.19	2.07	2.25	2.07	2.21	2.23	2.17
2	2.15	2.18	2.26	2.28	2.07	1.98	2.15
3	1.79	2.33	2.18	1.97	2.14	2.07	2.08
4	1.88	1.98	2.20	1.95	1.97	2.39	2.06
5	1.81	2.17	2.15	2.39	1.89	2.31	2.12
6	2.07	2.05	2.21	2.23	2.11	1.95	2.10
7	1.75	2.09	2.09	2.29	1.80	2.22	2.04
8	1.73	2.42	2.23	2.05	2.12	2.29	2.14
9	2.04	1.76	1.98	2.01	1.98	1.90	1.95
10	2.20	1.94	2.06	1.67	2.10	1.91	1.98
11	2.02	1.74	2.15	2.03	1.84	2.18	1.99
12	2.20	2.02	2.24	2.26	1.96	2.03	2.12
13	2.34	2.22	2.11	2.08	2.18	1.88	2.14
14	2.12	2.01	1.91	1.99	1.94	2.10	2.01
Average							2.075
Std. Dev.							0.071

MIT FOLD DATA

MIT Fold, log(10)N
Sample L Machine Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.76	2.73	2.75	2.73	2.73	2.80	2.75
2	2.27	2.11	2.18	2.30	2.19	2.03	2.18
3	2.28	2.24	2.31	2.40	2.28	2.40	2.32
4	2.51	2.30	2.41	2.42	2.40	2.42	2.41
5	2.49	2.42	2.54	2.47	2.35	2.36	2.44
6	2.21	2.32	2.36	2.42	2.34	2.49	2.36
7	2.23	2.21	2.16	2.18	2.26	2.32	2.23
8	2.30	2.54	2.57	2.54	2.32	2.53	2.47
9	2.36	2.55	2.33	2.29	2.55	2.45	2.42
10	1.98	2.16	2.12	2.29	2.09	2.12	2.13
11	2.32	2.41	2.37	2.22	2.18	2.32	2.30
12	2.42	2.45	2.59	2.50	2.32	2.29	2.43
13	2.16	2.18	2.54	2.51	2.31	2.17	2.31
14	2.30	2.36	2.01	2.38	2.28	2.23	2.26
Average							2.357
Std. Dev.							0.153

Sample L Machine Direction - Aged 17 Hours

1	2.44	2.13	2.12	2.06	2.38	2.26	2.23
2	2.31	1.86	2.28	2.34	2.48	1.98	2.21
3	2.43	1.95	1.99	2.13	1.98	2.12	2.10
4	1.91	1.93	2.24	2.32	2.09	2.21	2.12
5	2.34	2.20	1.99	2.61	2.19	2.31	2.27
6	2.36	1.93	2.12	2.21	2.23	2.12	2.16
7	2.06	2.25	2.23	2.13	2.23	2.21	2.19
8	2.26	2.33	2.16	2.17	2.22	2.37	2.25
9	2.02	2.22	2.05	2.15	2.30	2.38	2.19
10	2.37	2.31	2.38	2.22	2.15	2.44	2.31
11	2.29	2.21	2.40	2.14	2.22	2.37	2.27
12	2.06	2.08	2.17	2.20	2.30	2.33	2.19
13	2.30	2.18	2.36	2.25	2.39	2.20	2.28
14	2.27	2.44	2.25	2.35	2.37	2.37	2.34
Average							2.223
Std. Dev.							0.071

MIT FOLD DATA

MIT Fold, log(10)N
Sample L Machine Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.10	2.18	1.95	1.96	2.06	1.83	2.01
2	2.00	2.14	2.03	2.27	2.14	2.03	2.10
3	2.21	2.17	1.83	2.22	2.40	2.35	2.20
4	2.39	2.25	2.68	2.00	2.40	2.46	2.36
5	2.48	2.37	2.23	2.29	2.25	1.97	2.26
6	2.28	2.42	2.33	2.31	2.25	2.37	2.33
7	2.39	2.50	2.17	2.20	2.49	2.40	2.36
8	2.28	2.38	2.39	2.53	2.23	2.19	2.33
9	2.03	2.28	2.29	2.20	2.13	2.01	2.16
10	2.28	2.30	2.25	2.42	2.46	2.26	2.33
11	2.25	2.29	1.92	2.32	2.31	2.21	2.22
12	2.20	2.34	2.20	2.43	2.04	2.37	2.27
13	2.32	2.29	1.88	2.04	2.09	2.15	2.13
14	2.34	2.30	2.30	2.25	2.32	2.40	2.32
Average							2.241
Std. Dev.							0.109

Sample L Machine Direction - Aged 168 hours

1	2.24	2.35	2.26	2.05	2.50	2.23	2.27
2	2.40	2.46	2.26	2.29	2.28	2.03	2.29
3	2.12	2.45	2.16	2.17	2.08	1.88	2.14
4	2.10	2.18	2.40	2.09	2.40	2.28	2.24
5	2.25	2.31	2.36	2.30	2.19	2.45	2.31
6	2.37	2.45	2.07	2.28	2.39	1.92	2.25
7	2.42	1.98	2.05	1.76	2.16	1.83	2.03
8	2.10	2.31	2.18	2.02	2.25	2.01	2.14
9	2.30	2.17	2.04	2.34	2.09	1.88	2.14
10	2.46	2.35	2.00	2.26	2.21	2.43	2.28
11	1.89	2.07	2.08	2.21	2.10	2.03	2.06
12	2.37	2.35	1.97	2.28	2.34	1.95	2.21
13	2.39	2.23	2.21	2.32	2.23	2.29	2.28
14	2.16	1.94	2.43	2.31	2.26	2.18	2.21
Average							2.204
Std. Dev.							0.087

MIT FOLD DATA

MIT Fold, log(10)N
Sample L Cross Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.65	2.57	2.51	2.61	2.70	2.74	2.63
2	2.16	2.34	2.38	2.53	2.44	2.40	2.37
3	2.33	2.38	2.41	2.20	2.35	2.37	2.34
4	2.36	2.05	2.14	2.26	2.42	2.25	2.25
5	2.13	2.18	2.29	2.52	2.33	2.29	2.29
6	2.38	2.50	2.59	2.55	2.31	2.30	2.44
7	2.18	2.34	2.28	2.39	2.30	2.20	2.28
8	2.33	2.34	2.11	2.19	2.19	2.35	2.25
9	2.20	2.20	2.50	2.23	2.25	2.36	2.29
10	2.49	2.50	2.36	2.22	2.48	2.36	2.40
11	2.19	2.23	2.22	2.43	2.43	2.64	2.36
12	2.30	2.38	2.36	2.29	2.41	2.28	2.34
13	2.38	2.36	2.42	2.49	2.54	2.46	2.44
14	2.45	2.33	2.46	2.42	2.58	2.33	2.43
Average							2.365
Std. Dev.							0.101

Sample L Cross Direction - Aged 17 hours

1	2.01	2.22	2.40	2.26	2.18	2.17	2.21
2	1.95	1.99	2.12	2.20	2.25	1.97	2.08
3	2.26	2.30	2.37	2.38	2.34	2.36	2.33
4	2.14	2.35	2.36	2.24	2.20	2.35	2.27
5	2.54	2.50	2.16	2.35	2.23	2.27	2.34
6	2.20	2.37	2.03	2.20	2.02	2.20	2.17
7	2.25	2.37	2.26	2.33	2.31	2.20	2.29
8	2.18	2.33	2.11	2.20	2.10	2.25	2.20
9	2.20	2.18	2.18	2.16	2.23	2.16	2.18
10	2.27	2.33	2.41	2.34	2.36	2.30	2.33
11	2.38	2.45	2.24	2.41	2.35	2.06	2.32
12	2.28	2.48	2.31	2.33	2.33	1.93	2.28
13	2.27	2.42	2.45	2.43	2.26	2.43	2.38
14	2.40	2.45	2.35	2.25	2.08	2.09	2.27
Average							2.260
Std. Dev.							0.083

MIT FOLD DATA

MIT Fold, log(10)N
Sample M Machine Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.46	2.35	2.42	2.20	2.36	2.48	2.38
2	2.37	2.42	2.44	2.21	2.30	2.40	2.36
3	2.37	2.54	2.24	2.32	2.51	2.36	2.39
4	2.43	2.41	2.52	2.29	2.41	2.54	2.43
5	2.55	2.46	2.48	2.00	2.45	2.39	2.39
6	2.37	2.24	2.54	2.49	2.37	2.12	2.36
7	2.36	2.37	2.28	2.50	2.43	2.54	2.41
8	2.52	2.39	2.52	2.37	2.49	2.56	2.48
9	2.58	2.56	2.47	2.59	2.53	2.30	2.50
10	2.64	2.47	2.31	2.34	2.52	2.39	2.45
11	2.32	2.42	2.37	2.44	2.57	2.45	2.43
12	2.44	2.52	2.27	2.03	2.52	2.32	2.35
13	2.27	2.24	2.35	2.29	2.38	2.17	2.28
14	2.51	2.43	2.18	2.27	2.50	2.25	2.36
Average							2.397
Std. Dev.							0.057

Sample M Machine Direction - Aged 17 Hours

1	2.35	2.33	2.30	2.60	2.20	2.32	2.35
2	2.26	2.37	2.30	2.45	2.41	2.38	2.36
3	2.39	2.36	2.35	2.39	2.39	2.05	2.32
4	2.46	2.33	2.25	2.47	2.38	2.44	2.39
5	2.36	2.33	2.29	2.20	2.02	2.16	2.23
6	2.39	2.32	2.59	2.28	2.31	2.35	2.37
7	2.38	2.32	2.44	2.38	2.35	2.45	2.39
8	2.47	2.44	2.52	2.51	2.47	2.45	2.48
9	2.36	2.26	2.50	2.49	2.30	2.32	2.37
10	2.23	2.14	2.41	2.37	2.39	2.51	2.34
11	2.33	2.40	1.79	2.22	2.35	2.14	2.21
12	2.46	2.43	2.51	2.47	2.32	2.56	2.46
13	2.50	2.22	2.22	2.41	2.39	2.31	2.34
14	2.36	2.40	1.90	2.32	2.00	2.47	2.24
Average							2.346
Std. Dev.							0.078

MIT FOLD DATA

MIT Fold, log(10)N
Sample M Machine Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.44	2.37	2.18	2.36	2.38	2.32	2.34
2	2.26	2.51	2.40	2.35	2.27	2.17	2.33
3	2.34	2.42	2.34	2.35	2.18	2.28	2.32
4	2.33	2.41	2.28	2.33	2.34	2.23	2.32
5	2.18	2.56	2.36	2.36	2.44	2.41	2.39
6	2.47	2.47	2.27	2.48	2.02	2.33	2.34
7	2.26	2.29	2.23	2.29	2.25	2.52	2.31
8	2.25	2.29	2.30	2.16	2.24	2.29	2.25
9	2.43	2.21	2.55	2.42	2.28	1.99	2.31
10	2.30	2.10	2.39	2.37	2.25	2.37	2.30
11	2.15	2.52	2.05	2.36	2.15	1.87	2.18
12	2.37	2.30	2.32	2.30	2.25	2.05	2.27
13	2.40	2.43	2.51	2.42	2.48	2.31	2.43
14	2.32	2.22	2.33	2.37	2.41	2.24	2.32
Average							2.314
Std. Dev.							0.058

Sample M Machine Direction - Aged 168 hours

1	2.32	2.18	2.34	2.29	2.08	2.31	2.25
2	2.22	2.27	2.26	2.22	2.29	2.33	2.27
3	1.98	2.46	2.22	2.14	2.38	2.22	2.23
4	1.99	2.47	1.96	2.17	2.20	2.41	2.20
5	2.42	2.29	2.25	2.28	2.45	2.20	2.31
6	2.41	2.09	2.00	2.39	2.35	2.10	2.22
7	2.37	2.13	2.31	2.10	2.03	1.85	2.13
8	2.37	2.55	2.26	2.33	2.36	2.18	2.34
9	2.35	2.31	2.27	2.16	2.39	2.45	2.32
10	2.06	2.27	2.35	2.20	2.24	2.34	2.24
11	2.35	2.20	2.29	2.26	2.21	2.28	2.26
12	2.32	2.29	2.31	2.14	2.19	2.11	2.23
13	2.40	2.19	2.24	2.35	2.46	2.49	2.36
14	1.89	2.41	2.32	2.08	2.37	2.40	2.24
Average							2.258
Std. Dev.							0.060

MIT FOLD DATA

MIT Fold, log(10)N
Sample M Cross Direction - Unaged

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	2.03	2.00	2.00	1.80	1.91	1.98	1.95
2	2.13	2.21	2.21	2.23	1.97	2.01	2.13
3	1.93	1.91	1.87	1.92	1.89	1.92	1.91
4	2.07	1.74	1.74	2.08	1.91	1.85	1.90
5	1.96	2.15	2.08	1.78	2.14	1.81	1.99
6	2.02	2.05	2.15	2.05	2.07	2.10	2.07
7	1.85	2.04	2.29	2.15	2.04	1.77	2.02
8	1.97	2.05	2.12	2.12	2.24	2.02	2.09
9	1.96	2.11	2.03	1.72	2.04	1.90	1.96
10	2.00	2.00	2.08	2.16	2.14	2.04	2.07
11	2.19	2.08	2.12	2.11	2.08	2.12	2.12
12	1.94	1.68	2.02	2.00	1.85	2.06	1.92
13	1.96	1.99	1.77	1.72	1.95	1.97	1.89
14	2.13	2.03	2.03	2.04	2.11	2.32	2.11
Average							2.009
Std. Dev.							0.087

Sample M Cross Direction - Aged 17 hours

1	2.04	1.98	2.11	2.03	1.91	1.88	1.99
2	1.89	1.81	1.86	1.79	1.89	1.98	1.87
3	2.01	1.94	1.89	1.89	2.02	2.00	1.96
4	2.00	1.89	1.98	1.98	1.93	1.96	1.96
5	2.03	1.97	1.94	1.74	2.15	1.90	1.96
6	1.76	1.92	1.82	1.85	2.05	1.83	1.87
7	1.82	2.05	2.20	2.15	2.27	2.08	2.09
8	1.94	2.07	1.98	1.89	2.05	1.97	1.98
9	2.03	1.68	1.62	2.05	1.81	1.70	1.81
10	1.89	2.00	1.92	1.93	1.91	2.00	1.94
11	2.06	2.03	1.83	2.00	1.92	1.79	1.94
12	1.81	1.88	1.95	2.02	1.94	1.85	1.91
13	2.03	1.80	1.86	2.10	2.11	1.93	1.97
14	1.95	1.89	1.89	1.86	1.91	1.81	1.88
Average							1.938
Std. Dev.							0.068

MIT FOLD DATA

MIT Fold, log(10)N
Sample M Cross Direction - Aged 120 hours

Sheet Number	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Average
1	1.62	1.84	1.92	1.62	2.05	1.90	1.83
2	1.79	2.04	1.99	1.81	2.01	1.97	1.93
3	1.86	2.01	1.86	1.90	1.48	1.52	1.77
4	1.69	1.83	1.81	1.67	1.79	1.80	1.76
5	1.96	1.73	1.62	1.75	1.76	1.77	1.76
6	1.72	1.71	1.92	1.76	1.81	1.76	1.78
7	1.81	1.75	1.67	1.62	1.72	1.82	1.73
8	1.57	1.86	1.78	1.80	1.76	1.51	1.71
9	1.79	1.91	1.87	1.89	1.83	1.77	1.84
10	2.10	1.84	1.86	2.00	2.19	2.04	2.01
11	1.70	1.72	1.92	1.91	1.87	1.86	1.83
12	1.87	1.60	1.73	1.83	1.90	1.98	1.82
13	1.77	1.83	1.85	2.01	2.01	1.78	1.87
14	1.91	1.79	1.76	1.83	1.75	2.03	1.84
Average							1.821
Std. Dev.							0.079

Sample M Cross Direction - Aged 168 hours

1	1.93	1.76	1.97	1.79	1.72	1.81	1.83
2	1.97	1.81	1.85	1.68	1.89	1.82	1.84
3	1.87	2.13	2.15	2.04	1.93	1.76	1.98
4	1.81	1.81	1.96	1.92	1.92	1.85	1.88
5	1.81	1.81	1.90	1.84	1.94	1.92	1.87
6	1.63	1.79	1.95	1.72	2.04	1.97	1.85
7	1.85	1.86	2.10	2.10	1.79	1.91	1.94
8	1.94	1.98	2.00	1.94	1.91	1.93	1.95
9	1.98	1.73	1.64	1.98	1.75	1.77	1.81
10	1.73	1.86	1.81	1.93	2.00	2.02	1.89
11	2.10	1.98	2.13	1.81	1.91	1.85	1.96
12	1.80	1.76	1.88	1.94	1.78	1.94	1.85
13	1.63	1.76	1.98	1.72	1.87	1.95	1.82
14	1.88	1.81	1.92	1.94	1.94	1.91	1.90
Average							1.884
Std. Dev.							0.056