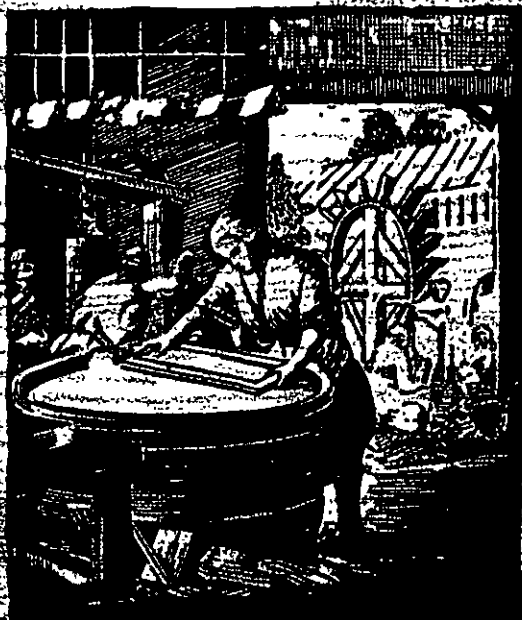


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**INSTITUTE OF
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Appleton Wisconsin

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CONTINUOUS BASELINE STUDY

✓ **Project 1108-13**

Program Report 91

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

February 1, 1955

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

CONTINUOUS BASELINE STUDY

Project 1108-13

Progress Report 91

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

February 1, 1955

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

In conjunction with the F.K.I. Continuous Baseline Study, one hundred different sample lots of 42-lb. Fourdrinier kraft linerboard were submitted by sixteen different F.K.I. mills to The Institute of Paper Chemistry for testing during the period January 1 through January 31. In addition to the 42-lb. kraft linerboard, one sample of special drum stock and two samples of miscellaneous linerboard were submitted for evaluation by one of the participating mills. The results on the special stock are tabulated separately in this report. A tabulation of the number of samples classified according to mill may be seen in Table I.

TABLE I
DISTRIBUTION OF 42-LB. LINERBOARD SAMPLES

Mill Code	Samples Submitted
A	8
B	24
C	8
D	10
E	2
F	4
G	7
H	1
I	6
J	4
K	1
L	9
M	5
N	6
O	4
P	0
Q	1

100

These sample lots were tested for basis weight, caliper, bursting strength, G. E. puncture, and Elmendorf tear. The average strength results for each mill may be seen in Table II and are graphically presented in Figures 1 to 6. In addition to a comparison of the mill averages for the various tests, Table II also shows the current F.K.I. averages, the cumulative F.K.I. averages, and the F.K.I. indexes. The cumulative F.K.I. average includes all the results up to but not including the current period, which in the case of this report is January 1 through January 31. The F.K.I. indexes are obtained as follows:

$$\frac{\text{current F.K.I. average}}{\text{cumulative F.K.I. average}} \times 100 = \text{F.K.I. index (\%)}$$

The F.K.I. index provides a ready means of comparing the current quality with previous results. For example, the current F.K.I. average basis weight is 42.9 lb., and the cumulative F.K.I. average basis weight is 43.1 lb. Hence, the index for basis weight determined in per cent as indicated above is 99.5. This signifies that the current average basis weight is lower than the cumulative average, which in this case covered the period from July 25, 1947, through December 31, 1954.

A comparison of the results in Table II and Figure 1 shows that the average basis weight results for all mills with the exception of Mills N and Q conform to the 42-lb. specification set forth in Rule 41. Mill C has the highest average basis weight, it being 44.5 lb. or approximately 6.0% higher than the 42-lb. specification.

On the other hand, Mill Q has the lowest average basis weight, it being 41.0 lb., 2.4% lower than the 42-lb. specification.

The amount by which the mills vary from the 42-lb. specification is as follows:

Mill Code	Per Cent
A	+2.6
B	+2.9
C	+6.0
D	+3.1
E	+2.6
F	+3.6
G	+2.6
H	+1.9
I	+1.9
J	+1.4
K	+2.9
L	+0.5
M	+2.1
N	-0.7
O	+3.6
P	--
Q	-2.4

A comparison of the average basis weight data for the previous period with the current F.K.I. average indicates that the basis weight results have decreased slightly.

A comparison of the average caliper values for the various mills (see Figure 2) shows that the mill averages vary from a low of 12.0 for Mills N and O to a high of 14.6 for Mill C, the average being 12.9 which is considerably lower than the cumulative current F.K.I. average of 13.7.

The average bursting strength values obtained for each mill are graphically presented in Figure 3. It may be observed in Table II that the average bursting strength values for the various mills range from a low of 99 for Mill G to a high of 119 for Mill Q. The current F.K.I. average bursting strength is 111, which is higher than the cumulative F.K.I. average of 107.

The data of Table II and Figure 4 show that the current F.K.I. average G. E. puncture for all mills is 36 units. Mill F has the highest G. E. puncture average, 41 units, and Mill Q has the lowest average, 29 units. The current F.K.I. G.E. puncture average of 36 units is the same as the cumulative F.K.I. average.

A graphic comparison of the Elmendorf tear results for the various mills is given in Figures 5 and 6. The data of Table II show that Mill F has the highest average machine direction tear value whereas Mill Q has the lowest. Mill F also has the highest cross-machine tear value and Mill G has the lowest value. It may be noted that the current F.K.I. average machine and cross-machine direction tear results are lower than the cumulative averages.

A comparison of the F.K.I. indexes indicate that, for the current period, the current F.K.I. averages for basis weight, caliper, and Elmendorf tear are lower than the respective cumulative F.K.I. averages, whereas the current F.K.I. average for bursting strength is higher than the cumulative F.K.I. average, and the current and cumulative F.K.I. averages are the same for G. E. puncture.

In order to compare the variation within a given mill, the test results for each particular mill have been tabulated in Tables III to XIX for Mills A to Q, respectively. In addition to the current and cumulative averages, the mill factor and mill index are given for each mill. The cumulative mill average is the average test result obtained on the samples submitted by the particular mill up to, but not including, the current average. The mill factor and the mill index are obtained as follows:

$$\frac{\text{current mill average}}{\text{cumulative mill average}} \times 100 = \text{mill factor } (\%)$$

$$\frac{\text{current mill average}}{\text{cumulative F.K.I. average}} \times 100 = \text{mill index } (\%)$$

The mill factor and the mill index serve as a ready means for comparing the current mill results either with the previous results for that particular mill or with the cumulative F.K.I. results. As the test data accumulate, the factors and indexes acquire added significance. The reports also contain a comparison of the test data obtained at the mills with test data obtained at The Institute of Paper Chemistry.

The results obtained on the special drum stock may be seen in Table XX.

It may be noted in Tables III through XX that the test data include information about the sheet finish. The summarized results for the mills which submitted sample lots during the current period are as follows:

Mill Code	No. of Sample Lots		
	W.F.	D.F.	Misc.
A	8 ^a		
B	24 ^a		
C	8		
D	10		
E	2 ^a		1 ^{a,b}
F	4		
G	7		
H	1 ^a		
I	6 ^a		
J			4 ^d
K			1 ^c
L			9 ^c
M	5		
N	5 ^a	1	
O	4		
Q			1

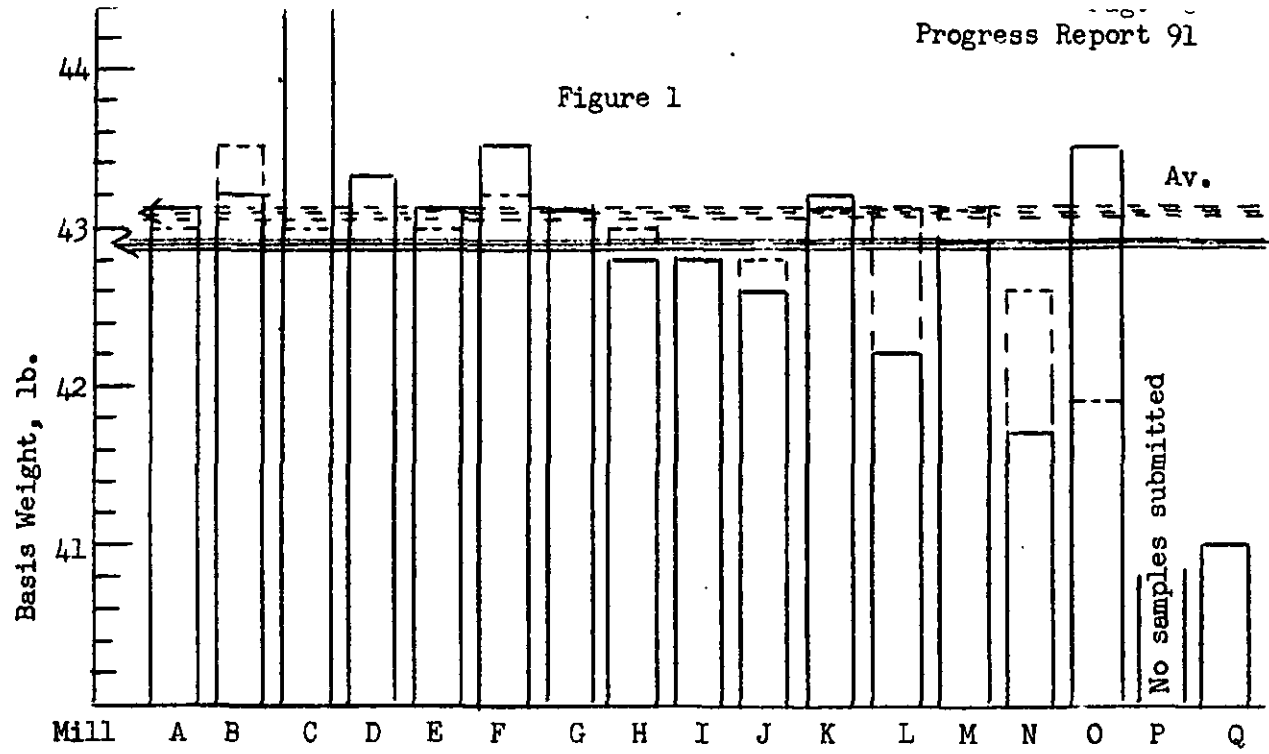
- ^a One side only.
- ^b Drum linerboard.
- ^c Sheet finish not reported.
- ^d Semi-water finish.

The results indicate that a majority of the mills are using a water finish on their 42-lb. linerboard.

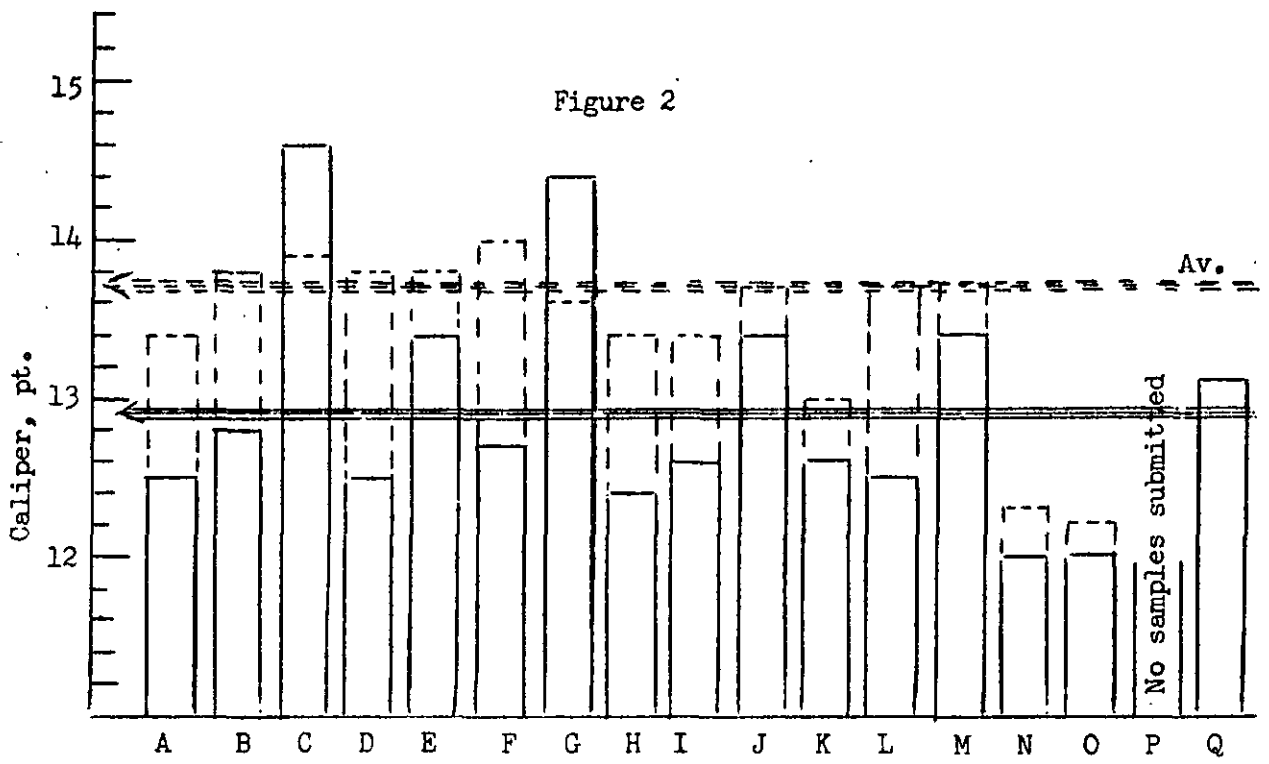
TABLE II

SUMMARY OF COMPOSITE MILL AVERAGES—JANUARY 1 THROUGH JANUARY 31, 1955

Code No.	Basis Weight, lb.	Caliper, points	Bursting Strength, p.s.i. gage	G. E. Puncture, units	In Direction	Elmendorf Tear, g./sheet	Across Direction
A	43.1	12.5	112	36	349	393	
B	43.2	12.8	109	33	316	358	
C	44.5	14.6	112	38	357	390	
D	43.3	12.5	115	39	361	409	
E	43.1	13.4	115	35	376	379	
F	43.5	12.7	107	41	407	439	
G	43.1	14.4	99	32	355	347	
H	42.8	12.4	101	34	344	362	
I	42.8	12.6	110	32	317	376	
J	42.6	13.4	113	34	380	386	
K	43.2	12.6	117	38	388	420	
L	42.2	12.5	110	34	328	359	
M	42.9	13.4	104	35	356	363	
N	41.7	12.0	111	38	342	379	
O	43.5	12.0	114	39	396	397	
P	No samples submitted.						
Q	41.0	13.1	119	29	311	384	
Current FKI Average:	42.9	12.9	111	36	355	384	
Cumulative FKI Average:	43.1	13.7	107	36	367	400	
FKI Index, %:	99.5	94.2	103.7	100.0	96.7	96.0	

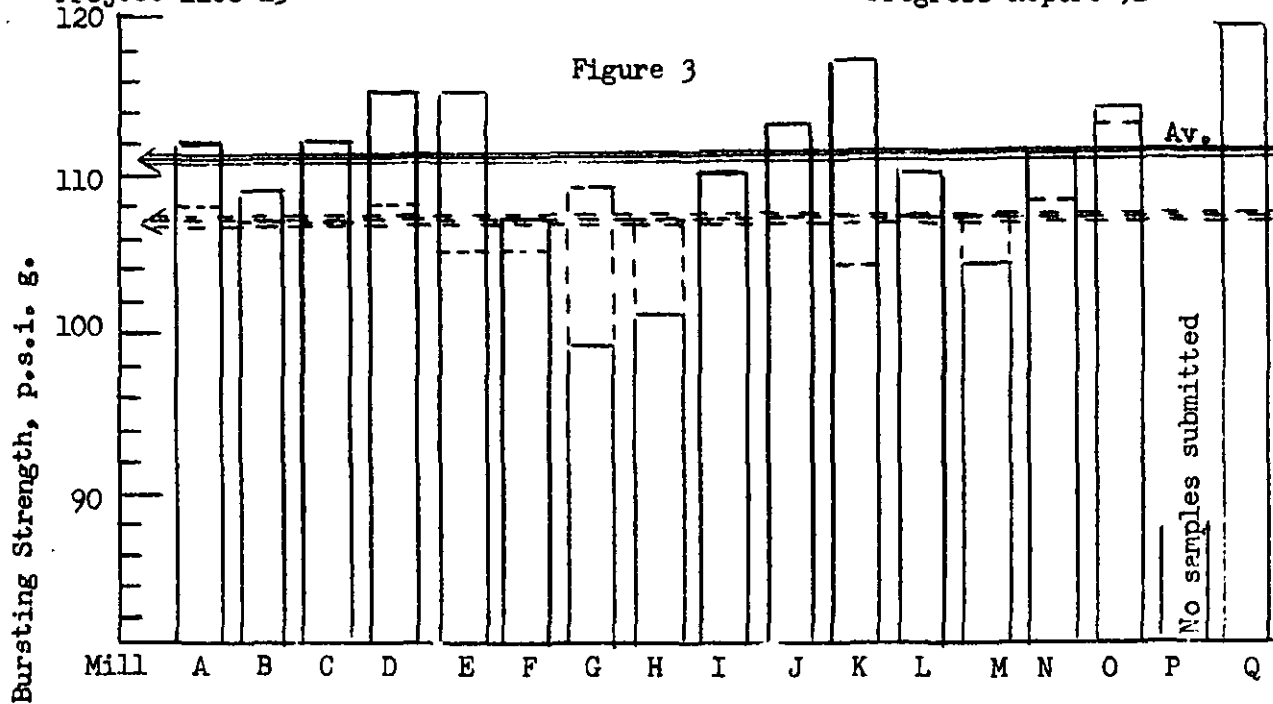


COMPARISON OF BASIS WEIGHT RESULTS
(Period January 1--January 31)

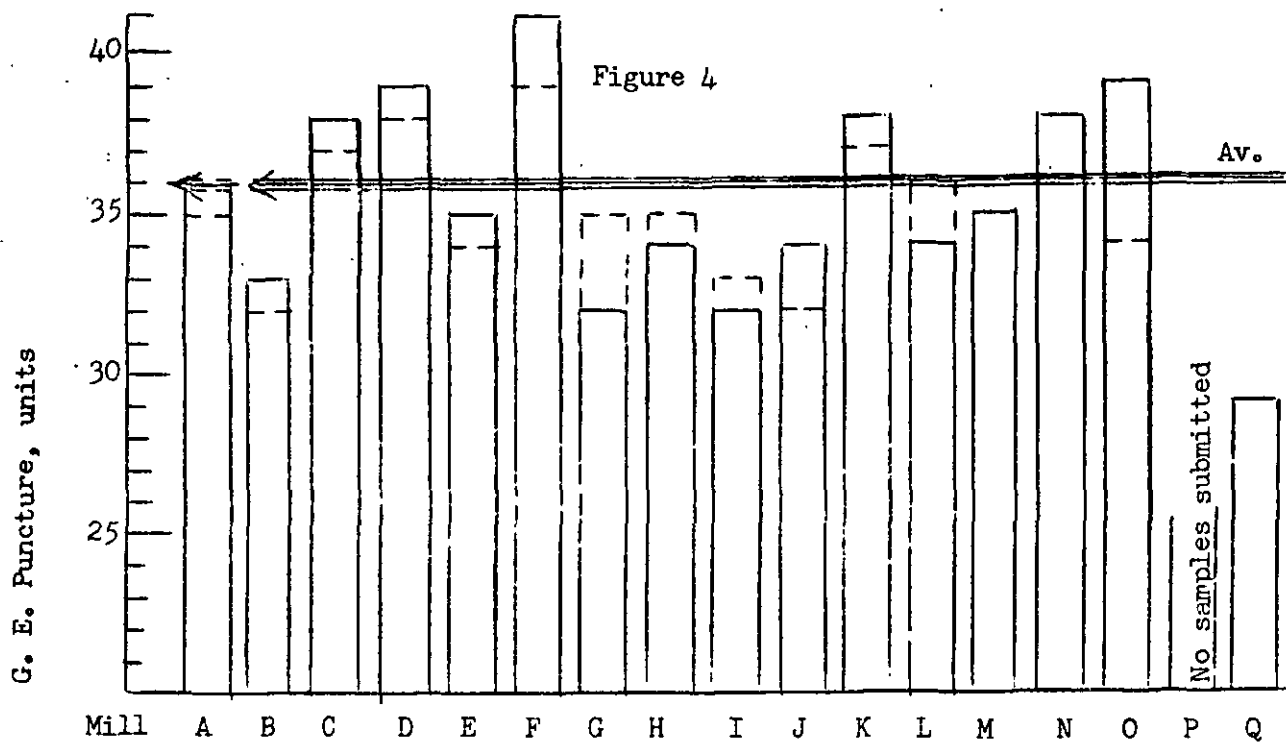


COMPARISON OF CALIPER RESULTS
(Period January 1--January 31)

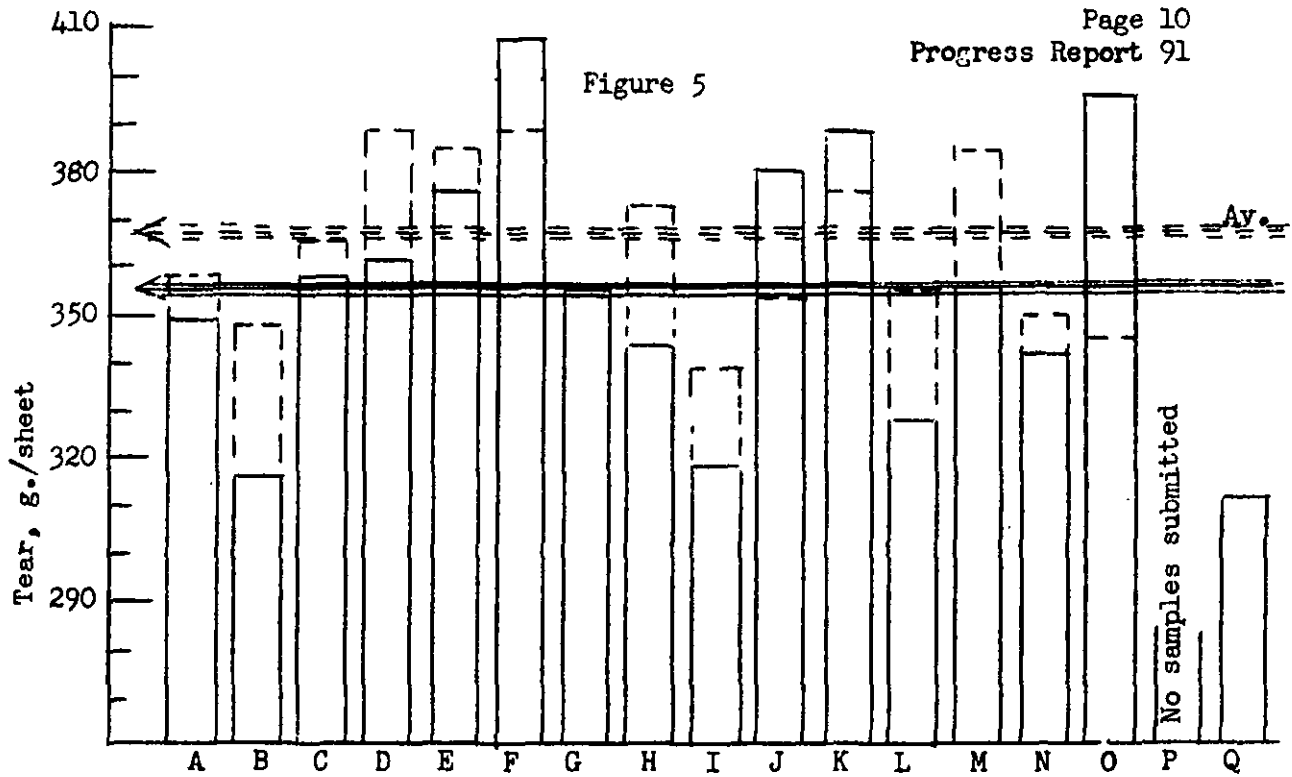
————— Current mill average
- - - - - Cumulative mill average



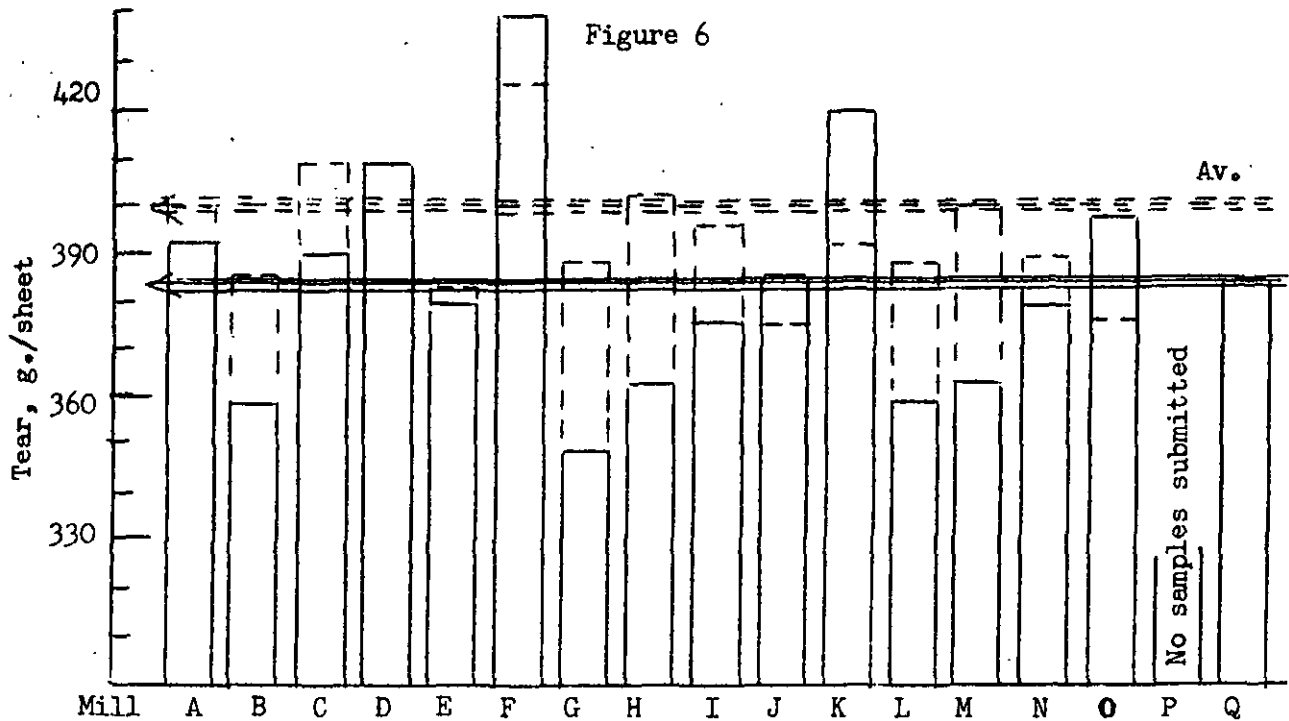
COMPARISON OF BURSTING STRENGTH RESULTS
(Period January 1--January 31)



COMPARISON OF G. E. PUNCTURE RESULTS
(Period January 1--January 31)



COMPARISON OF TEAR RESULTS, Machine Direction
(Period January 1--January 31)



COMPARISON OF TEAR RESULTS, Cross-machine Direction
(Period January 1--January 31)

TABLE III

INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

Weight, lb.	Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		Av.							
	Max.	Min.	Max.	Min.	Max.	Min.	In	Across								
10.6	43.2	12.4	11.9	12.1	139	89	118	37	32	34	392	280	340 ^a	440	344	391 ^a
10.0	43.1	13.4	12.7	13.0	123	86	112	42	35	37	464	304	365 ^a	448	336	395 ^a
10.4	43.1	13.5	12.4	12.9	123	87	107	42	36	39	416	304	359 ^a	464	344	409 ^a
10.4	43.1	13.5	13.0	13.2	127	88	107	42	36	40	400	320	352 ^a	456	352	390 ^a
10.2	42.7	12.5	12.0	12.1	131	92	115	37	32	34	352	304	329	400	336	373 ^a
10.4	43.4	12.7	11.9	12.3	142	93	117	39	33	35	416	328	372 ^a	480	352	390 ^a
10.4	43.2	12.6	11.8	12.2	129	93	111	42	34	37	392	280	340 ^a	424	352	394 ^a
10.6	42.9	12.9	11.8	12.4	136	88	109	39	32	35	352	296	333	432	360	399 ^a
43.1				12.5			112			36				349		393
43.0				13.4			108			35				357		400
100.2				93.3			103.7			102.9				97.8		98.2
100.0				91.2			104.7			100.0				95.1		98.2

specimens which tore beyond the 3/8-inch limit.

TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Ir					
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.		Av.	Max.	Min.		
<u>Mill A-42-lb. Linerboard</u>																			
161441	A-612	WF1S	1/12/55	1/ 2/55	1	44.2	42.6	43.2	12.4	11.9	12.1	139	89	118	37	32	34	392	280
161442	A-613	WF1S	1/12/55	1/ 5/55	2	44.0	42.0	43.1	13.4	12.7	13.0	123	86	112	42	35	37	464	304
161469	A-614	WF1S	1/14/55	1/ 5/55	2	43.8	42.4	43.1	13.5	12.4	12.9	123	87	107	42	36	39	416	304
161470	A-615	WF1S	1/14/55	1/ 8/55	2	43.6	42.4	43.1	13.5	13.0	13.2	127	88	107	42	36	40	400	320
161544	A-616	WF1S	1/18/55	1/ 9/55	2	43.2	42.2	42.7	12.5	12.0	12.1	131	92	115	37	32	34	352	304
161545	A-617	WF1S	1/18/55	1/13/55	2	44.4	42.4	43.4	12.7	11.9	12.3	142	93	117	39	33	35	416	328
161775	A-618	WF1S	1/26/55	1/16/55	2	43.6	42.4	43.2	12.6	11.8	12.2	129	93	111	42	34	37	392	280
161776	A-619	WF1S	1/26/55	1/17/55	1	43.6	42.6	42.9	12.9	11.8	12.4	136	88	109	39	32	35	352	296
Current Mill Average:						43.1			12.5			112					36		
Cumulative Mill Average:						43.0			13.4			108					35		
Mill Factor, %:						100.2			93.3			103.7					102.9		
Mill Index, %:						100.0			91.2			104.7					100.0		

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE IV

INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

Av.	Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		Av.						
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.							
2.9	13.2	12.0	12.7	118	71	105	35	29	32	344	272	306a	400	328	353a
2.9	13.4	12.3	12.8	120	83	104	36	30	33	336	240	299	376	312	351a
3.7	13.2	12.5	12.9	134	92	110	38	32	34	376	272	317	408	336	375a
4.2	13.4	12.5	13.0	128	92	109	36	31	34	400	248	321	400	336	377a
3.5	13.8	13.0	13.2	125	85	108	37	32	34	416	256	332a	416	328	368a
3.9	13.9	12.7	13.3	126	86	107	37	31	34	368	264	331a	392	320	355a
3.7	13.7	13.0	13.3	128	89	110	37	31	34	384	272	330a	384	344	365a
3.6	13.9	13.0	13.4	129	85	110	39	31	34	400	256	330a	376	312	349a
3.5	13.7	12.8	13.2	127	85	108	35	30	32	352	280	319a	408	336	373a
3.7	13.7	13.0	13.2	132	84	105	36	29	32	368	272	313a	416	344	373a
4.0	13.5	13.0	13.3	130	89	106	34	31	33	368	248	318	416	328	375a
3.6	13.9	12.8	13.2	130	87	109	38	31	34	360	280	319	384	336	359a
3.6	13.6	12.8	13.2	127	85	107	37	29	34	352	280	313	400	336	366a
3.8	13.4	12.9	13.1	128	69	105	38	30	34	368	288	330	448	336	373a
4.0	13.7	13.0	13.4	131	84	110	40	31	35	352	272	319	416	344	377a
3.7	13.5	13.0	13.2	122	81	107	38	31	34	376	280	325a	416	328	369a
3.0	12.5	11.3	12.0	132	88	111	32	27	30	368	272	312a	384	304	331a
2.8	12.9	11.7	12.3	139	87	114	32	28	30	400	288	315a	416	320	361a
3.7	12.8	11.5	12.1	129	103	114	32	28	29	336	272	297	392	304	337a
3.5	13.0	11.8	12.4	129	103	115	33	28	30	376	272	314a	416	328	345a
3.8	13.0	11.4	12.3	129	89	115	34	26	31	352	272	303a	408	304	337a
3.4	13.0	11.7	12.1	129	94	113	32	28	31	352	256	311a	384	312	347a
3.9	12.9	11.5	12.1	132	103	113	32	28	30	368	264	299a	376	312	339a
3.6	13.2	11.8	12.3	127	100	113	33	28	31	344	280	310a	400	312	347a
3.2			12.8	109		109		33	33			316			358
3.5			13.8	107		107		34	34			348			386
3.3			92.8	101.9		101.9		97.1	97.1			90.8			92.7
2			93.4	101.9		101.9		91.7	91.7			86.1			89.5

lens which tore beyond the 3/8-inch limit.

TABLE IV

SUMMARY OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

File No.	Mill Code	Fin- ish	Late Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units							
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.				
Mill B-42-lb. Linerboard																			
161290	B-1119	WF1S	1/ 5/55	12/13/54	1	44.2	42.0	42.9	13.2	12.0	12.7	118	71	105	29	35	105	32	344
161291	B-1120	WF1S	1/ 5/55	12/13/54	1	43.8	41.6	42.9	13.4	12.3	12.8	120	83	104	30	36	104	33	336
161292	B-1121	WF1S	1/ 5/55	12/13/54	1	45.0	42.6	43.7	13.2	12.5	12.9	134	92	110	32	38	110	34	376
161293	B-1122	WF1S	1/ 5/55	12/13/54	1	45.2	43.4	44.2	13.4	12.5	13.0	128	92	109	36	31	109	34	400
161294	B-1123	WF1S	1/ 5/55	12/21/54	1	44.8	42.2	43.5	13.8	13.0	13.2	125	85	108	37	32	108	34	416
161295	B-1124	WF1S	1/ 5/55	12/21/54	1	45.0	42.0	43.9	13.9	12.7	13.3	126	86	107	37	31	107	34	368
161296	B-1125	WF1S	1/ 5/55	12/21/54	1	45.2	41.8	43.7	13.7	13.0	13.3	128	89	110	37	31	110	34	384
161297	B-1126	WF1S	1/ 5/55	12/21/54	1	45.0	42.0	43.6	13.9	13.0	13.4	129	85	110	39	31	110	34	400
161337	B-1127	WF1S	1/ 8/55	12/29/54	1	45.0	42.0	43.5	13.7	12.8	13.2	127	85	108	35	30	108	32	352
161338	B-1128	WF1S	1/ 8/55	12/29/54	1	44.4	42.6	43.7	13.7	13.0	13.2	132	84	105	36	29	105	32	368
161339	B-1129	WF1S	1/ 8/55	12/29/54	1	45.0	42.4	44.0	13.5	13.0	13.3	130	89	106	34	31	106	33	368
161340	B-1130	WF1S	1/ 8/55	12/29/54	1	45.0	42.4	43.6	13.9	12.8	13.2	130	87	109	38	31	109	34	360
161341	B-1131	WF1S	1/10/55	12/29/54	1	44.6	42.6	43.6	13.6	12.8	13.2	127	85	107	37	29	107	34	352
161342	B-1132	WF1S	1/10/55	12/29/54	1	44.4	43.0	43.8	13.4	12.9	13.1	128	69	105	38	30	105	34	368
161343	B-1133	WF1S	1/10/55	12/29/54	1	46.0	42.0	44.0	13.7	13.0	13.4	131	84	110	40	31	110	35	352
161344	B-1134	WF1S	1/10/55	12/29/54	1	45.0	42.0	43.7	13.5	13.0	13.2	122	81	107	38	31	107	34	376
161588	B-1135	WF1S	1/20/55	1/10/55	1	43.6	40.0	42.0	12.5	11.3	12.0	132	88	111	32	27	111	30	368
161589	B-1136	WF1S	1/20/55	1/10/55	1	44.0	41.4	42.8	12.9	11.7	12.3	139	87	114	32	28	114	30	400
161590	B-1137	WF1S	1/20/55	1/10/55	1	43.0	40.0	41.7	12.8	11.5	12.1	129	103	114	32	28	114	30	336
161591	B-1138	WF1S	1/20/55	1/10/55	1	44.0	41.8	42.5	13.0	11.8	12.4	129	103	115	33	28	115	30	376
161592	B-1139	WF1S	1/20/55	1/10/55	1	44.0	41.8	42.8	13.0	11.4	12.3	129	89	115	34	26	115	31	352
161593	B-1140	WF1S	1/20/55	1/10/55	1	44.0	41.0	42.4	13.0	11.7	12.1	129	94	113	32	28	113	31	352
161594	B-1141	WF1S	1/20/55	1/10/55	1	43.2	40.4	41.9	12.9	11.5	12.1	132	103	113	32	28	113	30	368
161595	B-1142	WF1S	1/20/55	1/10/55	1	43.6	41.6	42.6	13.2	11.8	12.3	127	100	113	33	28	113	31	344

Current Mill Average: 43.2 12.8 109 33

Cumulative Mill Average: 43.5 13.8 107 34

Mill Factor, %: 99.3 92.8 101.9 97.1

Mill Index, %: 100 2 93.4 91.7

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE V
OF INDIVIDUAL TEST LOIS--JANUARY 1 THROUGH JANUARY 31, 1955

Weight,	Calliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		Av.							
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.								
2	45.6	15.5	14.3	15.0	140	76	110	42	38	40	464	328	373a	464	376	411a
3	45.5	15.5	14.4	15.1	132	100	113	44	40	42	392	336	369	456	360	410a
4	44.6	15.3	14.1	14.7	136	94	114	40	34	38	384	312	356a	432	360	387a
5	44.7	15.3	14.1	14.7	135	81	113	42	36	39	408	304	374a	480	368	413a
6	44.0	15.0	14.1	14.7	138	84	108	40	35	37	384	320	355a	432	352	394a
7	43.9	15.0	13.8	14.4	126	87	108	40	35	38	392	296	349a	408	344	373a
8	43.8	14.7	13.8	14.2	134	105	117	39	33	37	408	280	342a	416	320	365a
9	43.9	14.5	13.7	14.1	142	103	116	41	34	37	400	312	342a	400	336	369a
10	44.5	14.6		14.6			112		38				357			390
11	43.0	13.9		13.9			107		37				365			409
12	103.5	105.0		105.0			104.7		102.7				97.8			95.4
13	103.2	106.6		106.6			104.7		105.6				97.3			97.5

specimens which tore beyond the 3/8-inch limit.

TABLE V

SUMMARY OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

File No.	Mill Code	Fin- ish	Data Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.
161348	C-625	W.F.	1/10/55	1/ 3/55	1	46.2	45.2	45.6	15.5	14.3	15.0	14.0	76	110	42	38	40	464
161349	C-626	W.F.	1/10/55	1/ 3/55	1	46.0	44.8	45.5	15.5	14.4	15.1	132	100	113	44	40	42	392
161350	C-627	W.F.	1/10/55	1/ 4/55	1	45.2	43.4	44.6	15.3	14.1	14.7	136	94	114	40	34	38	384
161351	C-628	W.F.	1/10/55	1/ 4/55	1	46.0	44.0	44.7	15.3	14.1	14.7	135	81	113	42	36	39	408
161352	C-629	W.F.	1/10/55	1/ 5/55	1	44.4	43.2	44.0	15.0	14.1	14.7	138	84	108	40	35	37	384
161353	C-630	W.F.	1/10/55	1/ 5/55	1	44.4	43.0	43.9	15.0	13.8	14.4	126	87	108	40	35	38	392
161471	C-631	W.F.	1/14/55	1/11/55	1	45.0	43.2	43.8	14.7	13.8	14.2	134	105	117	39	33	37	408
161472	C-632	W.F.	1/14/55	1/11/55	1	45.0	43.2	43.9	14.5	13.7	14.1	142	103	116	41	34	37	400

Mill C-42-lb. Linerboard

Current Mill Average: 44.6 11.2 38

Cumulative Mill Average: 13.9 107 37

Mill Factor, %: 103.5 105.0 104.7 102.7

Mill Index, %: 103.2 106.6 104.7 105.6

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE VI

OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

Fourdrinier Kraft Board Institute, Inc.
Project 1108-13

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Weight,	Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, G./sheet		Across		Av.				
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.					
	Mill D—42-lb. Linerboard														
8	43.6	13.7	12.7	13.0	82	111	41	33	38	408	304	363a	528	368	427a
4	41.8	13.2	12.3	12.8	79	109	42	35	38	400	296	347a	440	328	379a
2	44.6	13.6	12.7	13.1	100	114	45	35	40	416	336	370a	440	384	413a
3	41.7	12.2	11.7	12.0	86	113	39	32	35	368	304	343a	472	328	391a
4	44.0	12.5	11.7	12.1	100	118	42	35	39	400	328	365a	464	384	416a
3	43.9	12.4	11.2	12.0	88	117	43	35	38	400	312	355a	528	360	419a
5	42.1	12.3	11.7	12.0	84	115	41	34	38	400	320	349a	464	368	411a
3	43.9	13.2	12.3	12.8	100	115	41	37	39	408	312	360a	448	384	409a
3	44.2	13.6	12.2	12.7	85	118	44	38	41	448	320	385a	472	384	421a
2	43.6	12.9	12.1	12.6	87	116	41	35	39	392	320	368a	488	368	410a
	43.3			12.5		115		39				361			409
	43.3			13.8		108		38				388			409
	100.0			90.6		106.5		102.6				93.0			100.0
	100.5			91.2		107.5		108.3				98.4			102.2

specimens which tore beyond the 3/8-inch limit.

TABLE VI

SUMMARY OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, P.s.i. gage		G. E. Puncture, units						
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.			
<u>Mill D—42-lb. Linerboard</u>																		
161443	D-824	W.F.	1/12/55	1/ 7/55	4	45.0	41.8	43.6	13.7	12.7	13.0	132	82	111	41	33	38	408
161444	D-825	W.F.	1/12/55	1/ 8/55	4	42.2	41.4	41.8	13.2	12.3	12.8	132	79	109	42	35	38	400
161445	D-826	W.F.	1/12/55	1/ 9/55	4	45.6	42.2	44.6	13.6	12.7	13.1	130	100	114	45	35	40	416
161506	D-827	W.F.	1/15/55	1/10/55	4	42.4	41.0	41.7	12.2	11.7	12.0	132	86	113	39	32	35	368
161507	D-828	W.F.	1/15/55	1/11/55	4	44.6	43.4	44.0	12.5	11.7	12.1	144	100	118	42	35	39	400
161508	D-829	W.F.	1/15/55	1/12/55	4	44.2	43.0	43.9	12.4	11.2	12.0	140	88	117	43	35	38	400
161509	D-830	W.F.	1/15/55	1/13/55	4	42.6	41.8	42.1	12.3	11.7	12.0	139	84	115	41	34	38	400
161808	D-831	W.F.	1/27/55	1/14/55	4	44.0	43.6	43.9	13.2	12.3	12.8	132	100	115	41	37	39	408
161809	D-832	W.F.	1/27/55	1/15/55	4	45.0	43.8	44.2	13.6	12.2	12.7	143	85	118	44	38	41	448
161810	D-833	W.F.	1/27/55	1/16/55	4	44.2	42.2	43.6	12.9	12.1	12.6	137	87	116	41	35	39	392
Current Mill Average:								43.3			12.5			115			39	
Cumulative Mill Average:								43.3			13.8			108			38	
Mill Factor, %:								100.0			90.6			106.6			102.6	
Mill Index, %:								100.5			91.2			107.5			108.3	

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE VII

OF INDIVIDUAL TEST LOTS--JANUARY 1 THROUGH JANUARY 31, 1955

Fourdrinier Kraft Board Institute, Inc.
Project 1108-13

Weight, lb.	Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		AV.							
	Max.	Min.	Max.	Min.	Max.	Min.	In	Across								
	<u>Mill E--42-lb. Linerboard</u>															
8	42.5	13.7	12.2	13.0	138	90	117	38	32	35	400	328	359a	424	352	383a
0	43.6	14.5	13.3	13.7	127	92	112	38	32	35	456	344	392a	432	352	375a
	43.1		13.4		115		115			35		376			379	
	43.0		13.8		105		105			34		384			383	
	100.2		97.1		109.5		109.5			102.9		97.9			99.0	
	100.0		97.8		107.5		107.5			97.2		102.5			94.8	

TABLE VIII

Mill F--42-lb. Linerboard

Weight, lb.	Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		AV.	Progress Report	Page 15					
	Max.	Min.	Max.	Min.	Max.	Min.	In	Across								
6	42.5	13.9	12.0	13.0	123	86	106	45	38	42	512	384	425a	528	432	475a
2	43.8	13.5	12.0	12.6	122	92	109	43	38	40	448	344	395a	472	392	423a
0	43.8	13.0	11.4	12.5	131	94	107	42	37	40	440	360	391a	472	392	423a
2	44.1	13.4	11.2	12.7	131	77	107	46	40	43	504	360	419a	496	392	433a
	43.5		12.7		107		107			41		407			439	
	43.2		14.0		105		105			39		389			426	
	100.7		90.7		101.9		101.9			105.1		104.6			103.1	
	100.9		92.7		100.0		100.0			113.9		110.9			109.8	

are specimens which tore beyond the 3/8-inch limit.

TABLE VII

SUMMARY OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units					
						Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.				
161286	E-120	WF1S	1/ 5/55	12/30/54	2	43.6	41.8	42.5	13.7	12.2	13.0	138	90	117	38	32	35
161519	E-123	WF1S	1/17/55	1/13/55	2	44.6	43.0	43.6	14.5	13.3	13.7	127	92	112	38	32	35
Current Mill Average:						43.1		43.1	13.4		13.4	115		115			35
Cumulative Mill Average:						43.0		43.0	13.8		13.8	105		105			34
Mill Factor, %:						100.2		100.2	97.1		97.1	109.5		109.5			102.9
Mill Index, %:						100.0		100.0	97.8		97.8	107.5		107.5			97.2

Mill E-42-lb. Linerboard

TABLE VIII

Mill F-42-lb. Linerboard

161270	F-92	W.B.	1/ 3/55	12/15/54	-	44.2	41.6	42.5	13.9	12.0	13.0	123	86	106	45	38	42
161345	F-93	W.B.	1/10/55	12/28/54	-	45.2	42.2	43.8	13.5	12.0	12.6	122	92	109	43	38	40
161346	F-94	W.B.	1/10/55	12/29/54	-	45.2	43.0	43.8	13.0	11.4	12.5	131	94	107	42	37	40
161347	F-95	W.B.	1/10/55	12/30/54	-	45.4	43.2	44.1	13.4	11.2	12.7	131	77	107	46	40	43
Current Mill Average:						43.5		43.5	12.7		12.7	107		107			41
Cumulative Mill Average:						43.2		43.2	14.0		14.0	105		105			39
Mill Factor, %:						100.7		100.7	90.7		90.7	101.9		101.9			105.1
Mill Index, %:						100.9		100.9	92.7		92.7	100.0		100.0			113.9

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE IX

INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

Height, Av.	Caliper, points		Bursting Strength, P.s.i. gage		G. E. Puncture, units		Elmendorf Tear, G./sheet								
	Max.	Min.	Av.	Max. Min.	Av.	Max. Min.	Av.	Max. Min.	In	Across	Min.	Max.	Min.	Av.	
<u>Mill G--42-lb. Linerboard</u>															
44.4	14.9	13.7	14.3	119	82	105	41	34	37	408	320	369a	448	368	393a
42.6	15.2	13.9	14.4	112	70	98	34	29	32	416	344	378a	368	272	333a
43.0	15.0	14.0	14.3	116	79	98	35	30	32	400	304	355a	368	296	331a
43.1	15.0	14.0	14.5	110	74	96	34	29	31	352	272	337a	416	288	344a
42.7	15.0	14.0	14.5	114	76	99	34	28	32	384	304	337a	400	272	327a
43.0	14.9	13.6	14.3	117	80	98	34	30	32	384	336	362a	440	504	353a
42.8	15.0	14.1	14.5	116	78	99	35	29	31	384	312	346a	376	320	347a
43.1			14.4			99			32			355			347
43.1			13.6			109			35			354			388
100.0			105.9			90.8			91.4			100.3			89.4
100.0			105.1			92.5			88.9			96.7			86.8

TABLE X

Mill H--42-lb. Linerboard

42.8	13.0	11.9	12.4	135	69	101	38	32	34	392	296	344	416	320	362a
42.8			12.4			101			34			344			362
43.0			13.4			107			35			373			403
99.5			92.5			94.4			97.1			92.2			89.8
99.3			90.5			94.4			94.4			93.7			90.5

specimens which tore beyond the 3/8-inch limit.

TABLE IX

SUMMARY OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i.		G. E. Puncture, units						
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	
<u>Mill G--42-lb. Linerboard</u>																		
161446	G-618	W.F.	1/13/55	1/ 5/55	2	45.6	42.4	44.4	14.9	13.7	14.3	119	82	105	41	34	37	4
161633	G-619	W.F.	1/22/55	12/30/54	2	44.2	41.6	42.6	15.2	13.9	14.4	112	70	98	34	29	32	4
161634	G-620	W.F.	1/22/55	12/30/54	2	44.0	41.8	43.0	15.0	14.0	14.3	116	79	98	35	30	32	4
161635	G-621	W.F.	1/22/55	1/ 3/55	2	44.0	42.0	43.1	15.0	14.0	14.5	110	74	96	34	29	31	3
161636	G-622	W.F.	1/22/55	1/ 3/55	2	44.0	42.0	42.7	15.0	14.0	14.5	114	76	99	34	28	32	3
161637	G-623	W.F.	1/22/55	1/ 8/55	2	43.8	42.2	43.0	14.9	13.6	14.3	117	80	98	34	30	32	3
161638	G-624	W.F.	1/22/55	1/ 8/55	2	43.6	42.0	42.8	15.0	14.1	14.5	116	78	99	35	29	31	3
Current Mill Average:						43.1		44.4		14.4		99		99		34		32
Cumulative Mill Average:						43.1		43.6		13.6		109		109		35		35
Mill Factor, %:						100.0		100.0		105.9		90.8		90.8		91.4		91.4
Mill Index, %:						100.0		100.0		105.1		92.5		92.5		88.9		88.9

TABLE X

Mill H--42-lb. Linerboard

161811	H-482	WFLS	1/27/55	1/17/55	2	43.4	42.0	42.8	13.0	11.9	12.4	135	69	101	38	32	34	3
Current Mill Average:						42.8		42.8		12.4		101		101		34		34
Cumulative Mill Average:						43.0		43.0		13.4		107		107		35		35
Mill Factor, %:						99.5		99.5		92.5		94.4		94.4		97.1		97.1
Mill Index, %:						99.3		99.3		90.5		94.4		94.4		94.4		94.4

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XI

Summary of Individual Test Lots—JANUARY 1 THROUGH JANUARY 31, 1955

is Weight, lb.	Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		Av.							
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.								
42.2	43.4	13.0	12.1	12.5	131	94	116	35	31	33	352	288	321a	400	344	372a
42.6	43.4	12.9	12.0	12.4	128	93	109	36	31	33	384	296	337a	440	336	384a
41.6	42.3	13.0	12.1	12.6	135	90	111	35	30	32	360	216	319a	448	328	385a
41.6	42.9	13.5	12.3	12.8	135	92	108	34	29	32	424	272	313a	432	344	391a
41.6	42.4	13.4	12.3	12.7	123	84	109	34	29	31	368	264	315a	432	320	371a
41.8	42.4	12.9	12.1	12.5	126	93	109	33	29	31	328	240	295a	384	320	355a
42.8				12.6			110			32			317			376
42.8				13.4			107			33			340			396
100.0				94.0			102.8			97.0			93.2			94.9
99.3				92.0			102.8			88.9			86.4			94.0

Mill I-42-lb. Linerboard

ore specimens which tore beyond the 3/8-inch limit.

TABLE XI

SUMMARY OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units				
						Max.	Av.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
161516	I-438	WF1S	1/17/55	1/11/55	1	44.2	42.2	43.4	13.0	12.1	12.5	94	116	35	31	33
161517	I-439	WF1S	1/17/55	1/12/55	1	45.0	42.6	43.4	12.9	12.0	12.4	93	109	36	31	33
161518	I-440	WF1S	1/17/55	1/13/55	1	43.6	41.6	42.3	13.0	12.1	12.6	90	111	35	30	32
161540	I-441	WF1S	1/18/55	1/14/55	1	43.4	41.6	42.9	13.5	12.3	12.8	92	108	34	29	32
161596	I-442	WF1S	1/20/55	1/15/55	1	43.4	41.6	42.4	13.4	12.3	12.7	84	109	34	29	31
161597	I-443	WF1S	1/20/55	1/15/55	1	43.6	41.8	42.4	12.9	12.1	12.5	93	109	33	29	31
<u>Mill I-42-lb. Linerboard</u>																
Current Mill Average:						42.8					12.6	110				32
Cumulative Mill Average:						42.8					13.4	107				33
Mill Factor, %:						100.0					94.0	102.8				97.0
Mill Index, %:						99.3					92.0	102.8				88.9

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XIII

SUMMARY OF INDIVIDUAL TEST LOTS--JANUARY 1 THROUGH JANUARY 31, 1955

Fourdrinier Kraft Board Institute, Inc.
Project 1108-13

x.	Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		g./sheet		Av.							
	Max.	Min.	Max.	Min.	Max.	Min.	In	Across								
.4	43.4	14.4	13.0	13.8	134	97	112	37	32	35	424	344	377a	432	360	385a
.8	42.0	14.0	12.8	13.2	131	103	117	35	31	33	400	328	353a	416	344	385a
.6	42.5	14.0	12.8	13.3	128	95	111	37	33	35	464	336	392a	440	344	391a
.6	42.4	14.0	12.8	13.4	134	100	113	37	32	34	472	336	400a	440	328	381a
	42.6		13.4				113		34				380			386
	42.8		13.7				107		32				353			375
	99.5		97.8				105.6		106.2				107.6			102.9
	98.8		97.8				105.6		94.4				103.5			96.5

Mill J--42-lb. Linerboard

TABLE XIII

Mill K--42-lb. Linerboard

.2	41.8	43.2	13.1	12.0	12.6	130	91	117	40	35	38	480	304	388a	464	384	420a
	43.2				12.6			117		38				388			420
	43.1				13.0			104		37				376			392
	100.2				96.9			112.5		102.7				103.2			107.1
	100.2				92.0			109.3		105.6				105.7			105.0

more specimens which tore beyond the 3/8-inch limit.

TABLE XII

SUMMARY OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units					
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
161260	J-511	B.F.	1/ 3/55	12/16/54	-	44.4	42.2	43.4	14.4	13.0	134	97	112	37	32	35	
161261	J-512	B.F.	1/ 3/55	12/19/54	--	42.8	40.4	42.0	14.0	12.8	131	103	117	35	31	33	
161687	J-513	B.F.	1/24/55	1/ 17/55	--	43.6	41.2	42.5	14.0	12.8	128	95	111	37	33	35	
161688	J-514	B.F.	1/24/55	1/17/55	--	43.6	41.6	42.4	14.0	12.8	134	100	113	37	32	34	
Current Mill Average:						42.6		42.6	13.4	13.4	112	113	107	105.6	106.	34	
Cumulative Mill Average:						42.8		42.8	13.7	13.7	107	107	107	107	105.6	106.	32
Mill Factor, %:						99.5		99.5	97.8	97.8	105.6	105.6	105.6	105.6	106.	106.	106.
Mill Index, %:						98.8		98.8	97.8	97.8	105.6	105.6	105.6	105.6	106.	106.	106.

TABLE XIII

Mill K-42-lb. Linerboard

161572	K-1		1/19/55	1/13/55	7	44.2	41.8	43.2	13.1	12.0	130	91	117	40	35	38
Current Mill Average:						43.2		43.2	12.6	12.6	117	117	117	117	117	38
Cumulative Mill Average:						43.1		43.1	13.0	13.0	104	104	104	104	104	37
Mill Factor, %:						100.2		100.2	96.9	96.9	112.5	112.5	112.5	112.5	102.	102.
Mill Index, %:						100.2		100.2	92.0	92.0	109.3	109.3	109.3	109.3	105.	105.

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XIV

Y OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

Weight, lb.	Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		Av.					
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.						
1.4	13.1	11.4	12.4	91	111	37	32	34	400	288	328a	400	312	357a
.4	13.3	11.8	12.5	93	111	37	32	34	392	304	333a	392	296	347a
.8	13.5	11.5	12.5	83	109	36	31	34	344	296	326a	384	320	347a
.2	13.2	11.9	12.6	133	110	36	30	33	352	280	315a	416	304	347a
.2	12.9	11.2	12.1	129	111	37	31	34	376	288	321a	432	320	359a
.0	13.3	11.6	12.3	128	109	36	30	33	344	288	321a	384	336	360a
.0	13.1	11.8	12.3	126	110	34	28	32	416	304	337a	408	320	359a
.6	13.6	11.8	12.8	128	110	40	34	37	376	312	337a	440	344	384a
.2	13.9	12.2	13.2	127	107	38	34	37	384	296	337a	400	336	374a
42.2			12.5		110			34			328			359
43.1			13.7		107			36			355			387
97.9			91.2		102.8			94.4			92.4			92.8
97.9			91.2		102.8			94.4			89.4			89.8

specimens which tore beyond the 3/8-inch limit.

TABLE XIV

SUMMARY OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units					
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.			
<u>Mill L-42-lb. Linerboard</u>																	
161257	L-322		1/ 3/55	12/ 1/54	1	43.6	40.4	41.9	13.1	11.4	12.4	133	91	111	37	32	34
161258	L-323		1/ 3/55	12/ 4/54	1	43.2	41.4	42.2	13.3	11.8	12.5	145	93	111	37	32	34
161259	L-324		1/ 3/55	12/ 6/54	1	43.8	40.8	42.2	13.5	11.5	12.5	124	83	109	36	31	34
161467	L-325		1/14/55	12/14/54	1	43.0	41.2	42.0	13.2	11.9	12.6	133	84	110	36	30	33
161468	L-326		1/14/55	12/18/54	1	43.8	41.2	42.1	12.9	11.2	12.1	129	93	111	37	31	34
161617	L-327		1/21/55	1/ 3/55	1	42.8	41.0	42.1	13.3	11.6	12.3	128	92	109	36	30	33
161618	L-328		1/21/55	1/ 7/55	1	43.8	41.0	42.2	13.1	11.8	12.3	126	90	110	34	28	32
161685	L-329		1/24/55	1/10/55	1	43.8	42.6	43.2	13.6	11.8	12.8	128	87	110	40	34	37
161686	L-330		1/24/55	1/14/55	1	43.0	41.2	42.2	13.9	12.2	13.2	127	90	107	38	34	37
Current Mill Average:								42.2			12.5			110			34
Cumulative Mill Average:								43.1			13.7			107			36
Mill Factor, %:								97.9			91.2			102.8			94.
Mill Index, %:								97.9			91.2			102.8			94.

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XV

VIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

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Caliper, points	Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		Av.							
	Max.	Min.	Max.	Min.	In	Across								
13.8	12.1	13.1	117	90	100	39	30	34	368	312	347a	387	320	344a
14.0	12.7	13.3	116	85	98	39	33	35	400	288	345a	376	328	353a
13.7	12.8	13.2	128	100	114	39	33	36	392	320	355a	424	352	379a
14.6	13.4	13.9	125	80	102	40	34	38	440	352	381a	424	352	387a
14.0	12.4	13.2	122	84	104	34	29	32	384	304	351a	400	328	355a
											356			363
											384			400
											92.7			90.8
											97.2			90.8
											100.0			
											97.2			
											97.2			
											97.0			
											97.0			

which tore beyond the 3/8-inch limit.

TABLE XV

SUMMARY OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units							
						Max.	Av.	Max.	Min.	Max.	Av.	Max.	Min.	Max.	Av.				
<u>Mill M--42-lb. Linerboard</u>																			
161255	M-281	W.	1/ 3/55	12/19/54	2	43.8	40.2	42.2	13.8	12.1	13.1	117	90	100	39	30	34	368	
161256	M-282	W.	1/ 3/55	12/20/54	2	44.8	40.0	43.2	14.0	12.7	13.3	116	85	98	39	33	35	400	
161464	M-283	W.	1/14/55	1/ 3/55	4	43.8	42.4	43.1	13.7	12.8	13.2	128	100	114	39	33	36	399	
161465	M-284	W.	1/14/55	1/ 6/55	4	46.4	42.4	43.7	14.6	13.4	13.9	125	80	102	40	34	38	444	
161632	M-285	W.	1/22/55	1/12/55	4	43.6	41.6	42.4	14.0	12.4	13.2	122	84	104	34	29	32	38.	
Current Mill Average:								42.9			13.4			104			35		
Cumulative Mill Average:								43.1			13.7			107			35		
Mill Factor, %:								99.5			97.8			97.2			100.0		
Mill Index, %:								99.5			97.8			97.2			97.2		

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVI

OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

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Lot	Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet							
	Max.	Min.	Max.	Min.	Max.	Min.	Av.	Max.	Min.	Av.				
42.1	12.4	11.7	132	91	111	41	35	38	408	320	358a	400	352	387a
41.3	12.2	11.0	126	84	108	40	33	37	408	280	339a	400	328	367a
41.6	12.4	11.3	133	89	110	40	33	36	376	288	331a	408	336	369a
41.7	12.3	11.2	127	90	108	40	35	38	368	312	331a	424	344	375a
42.0	13.0	11.6	151	100	118	42	34	38	416	304	353a	400	352	381a
41.6	12.7	11.8	130	85	114	41	36	39	400	304	342a	464	352	399a
41.7					111			38			342			379
42.6					108			36			350			389
97.9					102.8			105.6			97.7			97.4
96.8					103.7			105.6			93.2			94.8

Dimensions which tore beyond the 3/8-inch limit.

TABLE XVI

SUMMARY OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units						
						Max.	Av.	Max.	Min.	Max.	Min.	Max.	Min.	Av.	Ma.			
<u>Mill N-42-lb. Linerboard</u>																		
161266	N-124	D.F. 1/	3/55	12/17/54	1	42.4	41.8	42.1	12.4	11.7	12.0	132	91	111	41	35	38	40
161267	N-125	WFIS 1/	3/55	12/18/54	1	42.2	40.2	41.3	12.2	11.0	11.7	126	84	108	40	33	37	40
161268	N-126	WFIS 1/	3/55	12/26/54	1	42.2	40.2	41.6	12.4	11.3	11.9	133	89	110	40	33	36	37
161269	N-127	WFIS 1/	3/55	12/26/54	1	42.2	40.8	41.7	12.3	11.2	11.9	127	90	108	40	35	38	36
161752	N-128	WFIS 1/	25/55	1/16/55	1	43.0	41.2	42.0	13.0	11.6	12.1	151	100	118	42	34	38	41
161753	N-129	WFIS 1/	25/55	1/16/55	1	42.4	41.0	41.6	12.7	11.8	12.3	130	85	114	41	36	39	40
Current Mill Average:								41.7			12.0			111			38	
Cumulative Mill Average:								42.6			12.3			108			36	
Mill Factor, %:								97.9			97.6			102.8			105.6	
Mill Index, %:								96.8			87.6			103.7			105.6	

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVII

Y OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

Weight, lb.	Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet						
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.					
42.7	12.3	11.5	130	92	116	38	36	408	280	345a	400	352	373a
41.8	11.8	11.0	140	83	110	41	36	488	336	419a	408	320	365a
46.5	13.4	12.2	150	80	121	45	42	520	376	449a	496	376	439a
42.9	12.2	11.3	128	100	109	43	40	472	320	373a	456	368	411a
43.5		12.0			114		39			396			397
41.9		12.2			113		34			345			376
103.8		98.4			100.9		114.7			114.8			105.6
100.9		87.6			106.5		108.3			107.9			99.2

Mill O--42-lb. Linerboard

TABLE XVIII

Mill P--42-lb. Linerboard

No samples submitted.

TABLE XIX

Mill Q--42-lb. Linerboard

41.0	13.7	12.4	13.1	134	104	119	31	27	29	344	288	311a	424	328	384a
41.0			13.1			119			29			311			384
95.1			95.6			111.2			80.6			84.7			96.0

specimens which tore beyond the 3/8-inch limit.

TABLE XVII

SUMMARY OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units						
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.			
161298	Q-70	W.F.	1/ 5/55	12/23/54	4	44.0	42.0	42.7	12.3	11.5	11.9	130	92	116	38	33	36	40.8
161510	Q-71	W.F.	1/15/55	1/ 6/55	4	42.6	40.2	41.8	11.8	11.0	11.4	140	83	110	41	36	38	48.8
161511	Q-72	W.F.	1/15/55	1/ 6/55	4	47.6	46.0	46.5	13.4	12.2	12.9	150	80	121	45	40	42	52.0
161512	Q-73	W.F.	1/15/55	1/ 7/55	4	44.2	41.6	42.9	12.2	11.3	11.7	128	100	109	43	37	40	47.7
Current Mill Average:							43.5				12.0		114				39	
Cumulative Mill Average:							41.9				12.2		113				34	
Mill Factor, %:							103.8				98.4		100.9				114.7	
Mill Index, %:							100.9				87.6		106.5				108.3	

Mill Q--42-lb. Linerboard

TABLE XVIII

Mill P--42-lb. Linerboard
No samples submitted.

TABLE XIX

Mill Q--42-lb. Linerboard

161606	Q-1	R	1/21/55	1/17/55	3	42.0	40.0	41.0	13.7	12.4	13.1	134	104	119	31	27	29	344
Current Mill Average:							41.0				13.1		119				29	
Cumulative Mill Average:							95.1				95.6		111.2				80.6	
Mill Factor, %:																		
Mill Index, %:																		

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XX

INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

Caliper, point	Max. Min.	Av.	Bursting Strength, p.s.i. gage		G. E. Puncture, units	Max. Min.	Av.	Elmendorf Tear, g./sheet		Max. Min.	Av.			
			Max.	Min.				In	Across					
<u>Mill E--44/46-lb. Drum Linerboard</u>														
14.5	13.8	14.0	116	80	102	43	37	40	448	320	393a	480	368	401a
		14.0		102	102		40				393			401
		14.4		101	101		39				432			414
		97.2		101.0	101.0		102.6				91.0			96.9
<u>Miscellaneous</u>														
<u>Mill E--30-lb. Linerboard</u>														
10.5	8.9	9.8	101	70	91	26	22	23	300	268	285a	332	298	312a
<u>Mill E--33-lb. Linerboard</u>														
11.3	10.3	10.9	95	67	81	28	25	27	352	240	290a	312	248	273a

lots which tore beyond the 3/8-inch limit.

lots with no data sheet.

TABLE XX

SUMMARY OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, point		Bursting Strength, p.s.i. gage		G. E. Puncture, units						
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.			
161303	E-121	WF1S	1/6/55	1/3/55	2	46.4	44.6	45.9	14.5	13.8	14.0	116	80	102	43	37	40	448
Current Mill Average:								45.9			14.0			102			40	
Cumulative Mill Average:								47.2			14.4			101			39	
Mill Factor, %:								97.2			97.2			101.0			102.6	
<u>Miscellaneous</u>																		
<u>Mill E--30--lb. Linerboard</u>																		
161684	E-124	WF1S ^b	1/24/55	1/19/55	2	32.2	31.0	31.7	10.5	8.9	9.8	101	70	91	26	22	23	300
<u>Mill E---33--lb. Linerboard</u>																		
161466	E-122	WF1S	1/14/55	1/12/55	2	35.6	34.2	34.8	11.3	10.3	10.9	95	67	81	28	25	27	352

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

^b This sample was also identified as "D.F." according to the mill data sheet.

As a supplementary part of the Continuous Baseline Study, comparison of the mill test results with those obtained at The Institute of Paper Chemistry on corresponding samples have been included in this report. As may be noted in Table XXI, the atmospheric conditions used prior to and during the testing period varied considerably.

TABLE XXI

Code	Preconditioning			Conditioning		
	R.H., %	Temp., °F.	Time, hr.	R.H., %	Temp., °F.	Time, hr.
A		None		31-62	71-82	--
B	28-43	74	0.5	50	70	24-192
C	50	72	24	50	72	24
D	31-33	77-78	8	49-51	71-72	16
E		None		53-60	76-78	--
F	--	72	--	50-61	72	36-48
G		None		50	73	24-36
H		None		50	73	24
I		None		50-52	65-76	--
J		None		50	72-73	0.5
K	54	72	24	--	--	--
L		None		38-76	44-82	--
M	35	80	--	22-40	72-82	--
N	50	73	24	43-50	73-74	24
O		None		50	73	24
P		No samples submitted				
Q	48	72	16	48	73	6
E*		None		44	76	--

* Drum Linerboard

A summary of the mill comparisons for the current period as compared with the previous period may be seen in Tables XXII and XXIII, respectively. The comparison for the various mills is given in Tables XXIV to XI, for the 42-lb. liner samples. A comparison of the

special drum stock is given in Table XLI. In all the comparisons given in Tables XXII to XLI, the Institute's test values have been used as the reference line.

A comparison of the test data in Tables XXII and XXIII indicates that in the majority of cases there is good agreement between the mill and Institute data. Table XXII shows the average difference encountered in the comparison of Institute and mill results for the sample lots submitted by each mill for the current period, as well as the maximum difference encountered in comparing the Institute and mill test results for a given sample lot. In Table XXIII, the average differences shown for each test in Table XXII have been calculated on a percentage basis for each mill. In addition, for purposes of comparison, the average percentage differences for the preceding two periods are shown.

It may be noted in Table XXIII that the maximum variation between the average basis weight results of the Institute and those of a given mill on corresponding samples is two per cent for the current period. This maximum percentage variation agrees favorably with the corresponding variations for the previous periods. Further, it may be noted that the average basis weight results for mills D, G, H, J, K, N, O, and Q are higher than those for the Institute, whereas the result for Mills B and E are the same, and the results for the other mills are lower. In general, the agreement between Institute and mill basis weight results is very good.

The maximum variation in caliper for the current period is ten per cent. Compared with the values for the Institute, the average

result for Mill B is the same, and the average results for the other mills are lower. The accord between Institute and mill caliper values is good with the exception of the variation of 10% noted for Mill E.

It may be noted in Table XXIII that the bursting strength results exhibit a maximum variation of twelve per cent for the current period. The average results for Mills F, G, H, and K are higher than those for the Institute, the results for Mills A and B are the same, and the results for the other mills are lower. The agreement in bursting strength results is good for all mills except E, F, and Q.

The G. E. puncture results exhibit a maximum variation of twenty per cent for the current period. Compared with the values for the Institute, the result for Mill A is the same, and the average results for the other mills are lower. The agreement between the Institute and mill results is good for all mills except E and M.

It may be seen in Tables XXII and XXIII that the average machine direction tear results for Mills A, H, I, K, L, N, and Q are higher than those for the Institute, and the results for the other mills are lower. The maximum variation for the current period is twenty-six per cent. The difference encountered for Mill E appears to be excessive.

With regard to the cross-machine direction tear results, it may be noted that the average results for Mills B, C, G, H, I, K, L, N and Q are higher than those for the Institute whereas the average results

for the other mills are lower. The maximum variation for the current period is fourteen per cent. Only the differences for Mills E and N appear to be excessive.

SUMMARY OF TEST RESULT COMPARISONS
(Average Mill and Institute Results)

No. Samples Compared	Mills*											Caliper	Bursting Strength	G. E. Puncture		
	A	B	C	D	E	F	G	H	I	J	K				L	M
Institute	8	24	8	10	2	4	7	1	6	4	1	9	5	6	4	1
Mill	43.1	43.2	44.5	43.3	43.1	43.5	43.1	42.8	42.8	42.6	43.2	42.2	42.9	41.7	43.5	41.0
Av. Diff.**	42.8	43.2	44.2	43.5	43.1	43.2	43.3	43.0	42.4	43.1	43.3	42.1	42.1	41.8	43.8	41.4
Max. Diff.***	-0.3	0.0	-0.3	+0.2	0.0	-0.3	+0.2	+0.2	-0.4	+0.5	+0.1	-0.1	-0.8	+0.1	+0.3	+0.4
	-0.8	-0.9	-0.4	+2.3	+0.2	-1.0	+0.4	+0.2	-1.0	+0.8	+0.1	-0.7	-1.1	-0.5	+0.6	+0.4
Institute	12.5	12.8	14.6	12.5	13.4	12.7	14.4	12.4	12.6	13.4	12.6	12.5	13.4	12.0	12.0	13.1
Mill	12.4	12.8	14.0	12.0	12.0	12.1	14.0	12.0	12.3	13.1	12.2	12.0	12.8	11.7	11.8	12.6
Av. Diff.**	-0.1	0.0	-0.6	-0.5	-1.4	-0.6	-0.4	-0.4	-0.3	-0.3	-0.4	-0.5	-0.6	-0.3	-0.2	-0.5
Max. Diff.***	-0.4	-0.3	-0.8	-0.9	-1.5	-0.7	-0.5	-0.4	-0.4	-0.5	-0.4	-1.3	-0.7	-0.5	-0.2	-0.5
Institute	112	109	112	115	115	107	99	101	110	113	117	110	104	111	114	119
Mill	112	109	110	114	107	115	100	103	108	107	119	107	99	110	110	105
Av. Diff.**	0	0	-2	-1	-8	+8	+1	+2	-2	-6	+2	-3	-5	-1	-4	-14
Max. Diff.***	+5	+5	-6	-7	-9	+11	+3	+2	-6	-8	+2	-5	-9	-7	-6	-14
Institute	36	33	38	39	35	41	32	34	32	34	38	34	35	38	39	29
Mill	36	31	35	--	30	37	28	33	30	32	--	--	28	--	--	--
Av. Diff.**	0	-2	-3	--	-5	-4	-4	-1	-2	-2	--	--	-7	--	--	--
Max. Diff.***	-2	-4	-6	--	-5	-6	-6	-1	-3	-3	--	--	-9	--	--	--

(Continued on the next page)

TABLE XIII (Continued)
SUMMARY OF TEST RESULTS COMPARISONS
(Average Mill and Institute Results)

No. of Samples Compared	Mills*										Q					
	A	B	C	D	E	F	G	H	I	J		K	L	M	N	O
Institute	349	316	357	361	376	407	355	344	317	380	388	328	356	342	396	311
Mill	351	302	328	348	280	373	354	359	342	348	398	329	317	358	351	337
Av. Diff.**	+2	-14	-29	-13	-96	-34	-1	+15	+25	-32	+10	+1	-39	+16	-45	+26
Max. Diff.***	-55	-48	-44	-48	-104	-46	-31	+15	+45	-45	+10	-72	-73	+48	-77	+26
	8	24	8	10	2	4	7	1	6	4	1	9	5	6	4	1
	<u>Tearing Strength, in</u>															
	<u>Tearing Strength, across</u>															
Institute	393	358	390	409	379	439	347	362	376	386	420	359	363	379	397	384
Mill	389	368	394	395	328	399	381	396	408	382	447	377	324	431	383	407
Av. Diff.**	-4	+10	+4	-14	-51	-40	+34	+34	+32	-4	+27	+18	-39	+52	-14	+23
Max. Diff.***	-64	+41	+22	-33	-71	-76	+66	+34	+46	+29	+27	-44	-89	+88	-43	+23

* Comparison based on averages involves only those samples on which mill test data were submitted.

** Average difference is the difference between the Institute mill average and the mill average based on mill test data.

*** Maximum difference encountered in comparing the Institute average and the mill average for any sample submitted by that particular mill.

TABLE XXIII

COMPARISON OF INSTITUTE-MILL DIFFERENCES BY PERIODS

Mills	Period	Basis Weight	Caliper	Bursting Strength	G. E. Puncture	Tearing in	Strength across
A	Current	-0.7	-0.8	0	0	+0.6	-1
	90th	-2	-0.8	-2	0	-1	-1
	89th	-2	-0.8	0	0	-3	-1
B	Current	0	0	0	-6	-4	+3
	90th	-1	0	-2	-9	-1	+3
	89th	--	--	--	--	--	--
C	Current	-0.7	-4	-2	-8	-8	+1
	90th	-2	-4	-4	-8	-5	+2
	89th	-0.5	-4	-3	-3	-2	+3
D	Current	+0.5	-4	-0.9	--	-4	-3
	90th	+0.7	-2	+4	--	-4	-1
	89th	+2	0	+5	--	-7	-4
E	Current	0	-10	-7	-14	-26	-13
	90th	-2	-9	-6	-14	-26	-21
	89th	0	-7	-8	0	-19	-9
F	Current	-0.7	-5	+7	-10	-8	-9
	90th	-0.2	-3	+3	-5	+2	+4
	89th	-0.7	-4	-0.9	-2	-2	+1
G	Current	+0.5	-3	+1	-12	-0.3	+10
	90th	-0.2	-2	-2	-15	-1	-4
	89th	0	-3	-0.9	-12	-3	-7
H	Current	+0.5	-3	+2	-3	+4	+9
	90th	+1	+2	-0.9	-6	+2	0
	89th	+1	0	-6	-3	-6	-4
I	Current	-0.9	-2	-2	-6	+8	+9
	90th	-2	-4	-7	-14	-4	-5
	89th	-0.5	-2	-5	-3	+4	+7

B	Current	0	0	0	-6	-4	+3
	90th	-1	0	-2	-9	-1	+3
	89th	--	--	--	--	--	--
C	Current	-0.7	-4	-2	-8	-8	+1
	90th	-2	-4	-4	-8	-5	+2
	89th	-0.5	-4	-3	-3	-2	+3
D	Current	+0.5	-4	-0.9	--	-4	-3
	90th	+0.7	-2	+4	--	-4	-1
	89th	+2	0	+5	--	-7	-4
E	Current	0	-10	-7	-14	-26	-13
	90th	-2	-9	-6	-14	-26	-21
	89th	0	-7	-8	0	-19	-9
F	Current	-0.7	-5	+7	-10	-8	-9
	90th	-0.2	-3	+3	-5	+2	+4
	89th	-0.7	-4	-0.9	-2	-2	+1
G	Current	+0.5	-3	+1	-12	-0.3	+10
	90th	-0.2	-2	-2	-15	-1	-4
	89th	0	-3	-0.9	-12	-3	-7
H	Current	+0.5	-3	+2	-3	+4	+9
	90th	+1	+2	-0.9	-6	+2	0
	89th	+1	0	-6	-3	-6	-4
I	Current	-0.9	-2	-2	-6	+8	+9
	90th	-2	-4	-7	-14	-4	-5
	89th	-0.5	-2	-5	-3	+4	+7
J	Current	+1	-2	-5	-6	-8	-1
	90th	-3	-2	-6	-6	-6	+2
	89th	+0.7	-2	-1	+3	-3	+6
K	Current	+0.2	-3	+2	--	+3	+6
	90th	-0.9	-3	+4	--	-5	+2
	89th	-0.7	-4	+0.9	--	-8	-1
L	Current	-0.2	-4	-3	--	+0.3	+5
	90th	-1	-4	-0.9	--	+3	+7
	89th	-0.5	-4	+2	--	0	+2
M	Current	-2	-4	-5	-20	-11	-11
	90th	-3	-5	+2	-22	-5	-6
	89th	-2	-4	+4	-20	-4	-6
N	Current	+0.2	-2	-0.9	--	+5	+14
	90th	-0.2	-2	0	--	+4	+19
	89th	+0.5	-0.8	+3	--	+2	+20
O	Current	+0.7	-2	-4	--	-11	-4
	90th	0	-2	-3	--	-13	-5
	89th	-0.2	-2	-2	--	-9	-2
Q	Current	+1	-4	-12	--	+8	+6
	90th	--	--	--	--	--	--
	89th	--	--	--	--	--	--

TABLE XIV

TABLE OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

Institute Data versus Mill Data

Lot No.	Caliper, points	IPC Mill Diff.	Bursting Strength, p.s.i. gage		IPC Mill Diff.	G. E. Puncture, units	IPC Mill Diff.	Elmendorf Tear, g./sheet		IPC Mill Diff.	Across Mill Diff.				
			IPC Mill Diff.	IPC Mill Diff.				In	Across						
<u>Mill A-42-lb. Linerboard</u>															
2	12.1	12.3	+0.2	118	113	-5	34	35	+1	340 ^a	338	-2	391a	391	0
5	13.0	12.6	-0.4	112	110	-2	37	36	-1	365a	335	-30	395a	384	-11
5	12.9	12.8	-0.1	107	111	+4	39	40	+1	359a	354	-5	409a	396	-13
5	13.2	13.1	-0.1	107	110	+3	40	38	-2	352a	377	+25	390a	414	+24
1	12.1	12.4	+0.3	115	114	-1	34	34	0	329	348	+19	373a	400	+27
8	12.3	12.1	-0.2	117	115	-2	35	34	-1	372a	317	-55	390a	326	-64
2	12.2	12.1	-0.1	111	116	+5	37	38	+1	340a	388	+48	394a	405	+11
2	12.4	12.1	-0.3	109	111	+2	35	36	+1	333	347	+14	399a	394	-5
3	12.5	12.4	-0.1	112	112	0	36	36	0	349	351	+2	393	389	-4

specimens which tore beyond the 3/8-inch limit.

d from the totals of the individual readings.

TABLE XIV
 OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

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Institute Data versus Mill Data

Caliper, points	IPC Mill Diff.	Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.			
		IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	In	Across							
12.7	12.8	+0.1	105	104	- 1	32	31	- 1	306a	286	-20	353a	355	+ 2
12.8	12.8	0.0	104	104	0	33	31	- 2	299	284	-15	351a	361	+10
12.9	13.0	+0.1	110	108	- 2	34	31	- 3	317	297	-20	375a	363	-12
13.0	13.1	+0.1	109	106	- 3	34	31	- 3	321	310	-11	377a	376	- 1
13.2	13.2	0.0	108	105	- 3	34	31	- 3	332a	311	-21	368a	383	+15
13.3	13.2	-0.1	107	105	- 2	34	30	- 4	331a	321	-10	355a	393	+38
13.3	13.1	-0.2	110	107	- 3	34	32	- 2	330a	313	-17	365a	384	+19
13.4	13.1	-0.3	110	106	- 4	34	32	- 2	330a	318	-12	349a	390	+41
13.2	13.2	0.0	108	108	0	32	32	0	319a	323	+ 4	373a	397	+24
13.2	13.2	0.0	105	107	+ 2	32	32	0	313a	325	+12	373a	388	+15
13.3	13.3	0.0	106	108	+ 2	33	33	0	318	321	+ 3	375a	406	+31
13.2	13.2	0.0	109	106	- 3	34	33	- 1	319	314	+ 5	359a	389	+30
13.2	13.2	0.0	107	108	+ 1	34	32	- 2	313	327	+14	366a	398	+32
13.1	13.3	+0.2	105	107	+ 2	34	32	- 2	330	337	+ 7	373a	404	+31
13.4	13.3	-0.1	110	108	- 2	35	32	- 3	319	331	+12	377a	414	+37
13.2	13.2	0.0	107	108	+ 1	34	32	- 2	325a	327	+ 2	369a	395	+26
12.0	12.0	0.0	111	116	+ 5	30	30	0	312a	287	-25	331a	351	+20
12.3	12.2	-0.1	114	116	+ 2	30	30	0	315a	274	-41	361a	321	-40
12.1	12.0	-0.1	114	115	+ 1	29	28	- 1	297	267	-30	337a	322	-15
12.4	12.2	-0.2	115	115	0	30	30	0	314a	291	-23	345a	343	- 2
12.3	12.2	-0.1	115	114	- 1	31	28	- 3	303a	270	-33	337a	321	-16
12.1	12.2	+0.1	113	114	+ 1	31	28	- 3	311a	263	-48	347a	318	-29
12.1	12.0	-0.1	113	115	+ 2	30	28	- 2	299a	270	-29	339a	331	- 8
12.3	12.2	-0.1	113	115	+ 2	31	28	- 3	310a	279	-31	347a	343	- 4
12.8	12.8	0.0	109	109	0	33	31	- 2	316	302	-14	358	368	+10

Dimensions which tore beyond the 3/8-inch limit.
 *From the totals of the individual readings.

SUMMARY OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

Institute Data Versus Mill Data

File No.	Mill Code	Fish	Date Made	Mch. No.	Basis Weight,		Caliper,		IPC Mill Diff.		IPC Mill Diff.		IPC Mill Diff.	IPC Mill			
					lb.	Diff.	points	IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.							
161290	B-1119	WF1S	12/13/54	1	42.9	+0.4	12.7	12.8	+0.1	105	104	-1	32	31	306a	286	
161291	B-1120	WF1S	12/13/54	1	42.9	+0.2	12.8	12.8	0.0	104	104	0	33	31	299	281	
161292	B-1121	WF1S	12/13/54	1	43.7	+0.5	12.9	13.0	+0.1	110	108	-2	34	31	317	297	
161293	B-1122	WF1S	12/13/54	1	44.2	+0.3	13.0	13.1	+0.1	109	106	-3	34	31	321	310	
161294	B-1123	WF1S	12/21/54	1	43.5	+0.3	13.2	13.2	0.0	108	105	-3	34	31	332a	311	
161295	B-1124	WF1S	12/21/54	1	43.9	+0.1	13.3	13.2	-0.1	107	105	-2	34	30	331a	32	
161296	B-1125	WF1S	12/21/54	1	43.7	+0.2	13.3	13.1	-0.2	110	107	-3	34	32	330a	31	
161297	B-1126	WF1S	12/21/54	1	43.6	+0.4	13.4	13.1	-0.3	110	106	-4	34	32	330a	31	
161337	B-1127	WF1S	12/29/54	1	43.5	+0.3	13.2	13.2	0.0	108	108	0	32	32	319a	32	
161338	B-1128	WF1S	12/29/54	1	43.7	+0.1	13.2	13.2	0.0	105	107	+2	32	32	313a	32	
161339	B-1129	WF1S	12/29/54	1	44.0	-0.2	13.3	13.3	0.0	106	108	+2	33	33	318	32	
161340	B-1130	WF1S	12/29/54	1	43.6	0.0	13.2	13.2	0.0	109	106	-3	34	33	319	31	
161341	B-1131	WF1S	12/29/54	1	43.6	+0.4	13.2	13.2	0.0	107	108	+1	34	32	313	32	
161342	B-1132	WF1S	12/29/54	1	43.8	+0.2	13.1	13.3	+0.2	105	107	+2	34	32	330	33	
161343	B-1133	WF1S	12/29/54	1	44.0	+0.2	13.4	13.3	-0.1	110	108	-2	35	32	319	33	
161344	B-1134	WF1S	12/29/54	1	43.7	0.0	13.2	13.2	0.0	107	108	+1	34	32	325a	32	
161588	B-1135	WF1S	1/10/55	1	42.0	-0.8	12.0	12.0	0.0	111	116	+5	30	30	312a	28	
161589	B-1136	WF1S	1/10/55	1	42.8	-0.9	12.3	12.2	-0.1	114	116	+2	30	30	315a	27	
161590	B-1137	WF1S	1/10/55	1	41.7	-0.6	12.1	12.0	-0.1	114	115	+1	29	28	297	26	
161591	B-1138	WF1S	1/10/55	1	42.5	-0.6	12.4	12.2	-0.2	115	115	0	30	30	314a	29	
161592	B-1139	WF1S	1/10/55	1	42.8	-0.4	12.3	12.2	-0.1	115	114	-1	31	28	303a	27	
161593	B-1140	WF1S	1/10/55	1	42.4	-0.2	12.1	12.2	+0.1	113	114	+1	31	28	311a	26	
161594	B-1141	WF1S	1/10/55	1	41.9	0.0	12.1	12.0	-0.1	113	115	+2	30	28	299a	27	
161595	B-1142	WF1S	1/10/55	1	42.6	-0.1	12.3	12.2	-0.1	113	115	+2	31	28	310a	27	
Current Mill Average:					43.2	43.2	0.0	12.8	12.8	0.0	109	109	0	33	31	316	30

Mill B-42-lb. Linerboard

This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.
 Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XVI

INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

Institute Data versus Mill Data

Caliper, points	IPC Mill Diff.	Bursting Strength, P.s.i. gage	IPC Mill Diff.	G. E. Puncture, units	IPC Mill Diff.	Elmendorf Tear, g./sheet		IPC Mill Diff.	IPC Mill Diff.					
						In	Across							
5.0	14.3	-0.7	110	111	+ 1	40	37	- 3	373a	340	-33	411a	409	- 2
5.1	14.3	-0.8	113	111	- 2	42	36	- 6	369	354	-15	410a	403	- 7
4.7	14.2	-0.5	114	113	- 1	38	36	- 2	356a	345	-11	387a	408	+21
4.7	14.2	-0.5	113	111	- 2	39	36	- 3	374a	334	-40	413a	393	-20
4.7	14.0	-0.7	108	106	- 2	37	34	- 3	355a	332	-23	394a	391	- 3
4.4	13.8	-0.6	108	107	- 1	38	33	- 5	349a	320	-29	373a	395	+22
4.2	13.6	-0.6	117	111	- 6	37	32	- 5	342a	298	-44	365a	363	- 2
4.1	13.6	-0.5	116	111	- 5	37	33	- 4	342a	299	-43	369a	388	+19
4.6	14.0	-0.6	112	110	- 2	38	35	- 3	357	328	-29	390	394	+ 4

mens which tore beyond the 3/8-inch limit.
the totals of the individual readings.

Mill C--42-lb. Linerboard

TABLE XVI

SUMMARY OF INDIVIDUAL TEST LOGS—JANUARY 1 THROUGH JANUARY 31, 1955

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		In Mill					
					IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.						
161348	C-625	W.F.	1/ 3/55	1	45.6	45.2	-0.4	15.0	14.3	-0.7	110	111	+ 1	40	37	- 3	373a	340
161349	C-626	W.F.	1/ 3/55	1	45.5	45.2	-0.3	15.1	14.3	-0.8	113	111	- 2	42	36	- 6	369	354
161350	C-627	W.F.	1/ 4/55	1	44.6	44.5	-0.1	14.7	14.2	-0.5	114	113	- 1	38	36	- 2	356a	345
161351	C-628	W.F.	1/ 4/55	1	44.7	44.5	-0.2	14.7	14.2	-0.5	113	111	- 2	39	36	- 3	374a	334
161352	C-629	W.F.	1/ 5/55	1	44.0	43.7	-0.3	14.7	14.0	-0.7	108	106	- 2	37	34	- 3	355a	332
161353	C-630	W.F.	1/ 5/55	1	43.9	43.7	-0.2	14.4	13.8	-0.6	108	107	- 1	38	33	- 5	349a	320
161471	C-631	W.F.	1/11/55	1	43.8	43.5	-0.3	14.2	13.6	-0.6	117	111	- 6	37	32	- 5	342a	298
161472	C-632	W.F.	1/11/55	1	43.9	43.5	-0.4	14.1	13.6	-0.5	116	111	- 5	37	33	- 4	342a	299
Current Mill Average:					44.5	44.2	-0.3	14.6	14.0	-0.6	112	110	- 2	38	35	- 3	357	328

Mill C--42--lb. Linerboard

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

Institute Data versus Mill Data

Liner, Joints Mill Diff.	Bursting Strength, p.s.i. gage IPC Mill Diff.	G. E. Puncture, units IPC Mill Diff.	Elmendorf Tear, g./sheet		IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.
			In	Across			
12.1 -0.9	111 115 + 4	38	363a 353 -10	427a 406	-21	361	-14
12.1 -0.7	109 115 + 6	38	347a 347 0	379a 397	+1b	347a 347 0	-14
12.2 -0.9	114 117 + 3	40	370a 353 -17	413a 401	-12	370a 353 -17	-12
12.0 0.0	113 112 - 1	35	343a 348 + 5	391a 379	-12	343a 348 + 5	-12
11.9 -0.2	118 114 - 4	39	365a 341 -24	416a 383	-33	365a 341 -24	-33
11.9 -0.1	117 114 - 3	38	355a 369 +14	419a 401	-18	355a 369 +14	-18
12.0 0.0	115 114 - 1	38	349a 359 +10	411a 399	-12	349a 359 +10	-12
12.1 -0.7	115 112 - 3	39	360a 336 -24	409a 392	-17	360a 336 -24	-17
12.1 -0.6	118 111 - 7	41	385a 337 -48	421a 394	-27	385a 337 -48	-27
12.1 -0.5	116 116 0	39	368a 340 -28	410a 397	-13	368a 340 -28	-13
12.0 -0.5	115 114 - 1	39	361 348 -13	409 395	-14	361 348 -13	-14

TABLE XXVIII

Mill E--42-lb. Linerboard

11.5 -1.5	117 108 - 9	35 31 - 4	359a 272 -87	383a 352	-31	359a 272 -87	-31
12.4 -1.3	112 106 - 6	35 30 - 5	392a 288 -104	375a 304	-71	392a 288 -104	-71
12.0 -1.4	115 107 - 8	35 30 - 5	396 280 -96	379 328	-51	396 280 -96	-51

s which tore beyond the 3/8-inch limit.

e totals of the individual readings.

SUMMARY OF INDIVIDUAL TEST LOTS - JANUARY 1 THROUGH JANUARY 31, 1955

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting		IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	G. E. Puncture units	In Elme
					IPC	Mill	IPC	Mill	IPC	Mill						
161443	D-824	W.F.	1/ 7/55	4	43.6	44.2	+0.6	13.0	12.1	-0.9	111	115	+ 4	38	363a	353
161444	D-825	W.F.	1/ 8/55	4	41.8	44.1	+2.3	12.8	12.1	-0.7	109	115	+ 6	38	347a	347
161445	D-826	W.F.	1/ 9/55	4	44.6	44.3	-0.3	13.1	12.2	-0.9	114	117	+ 3	40	370a	353
161506	D-827	W.F.	1/10/55	4	41.7	42.6	+0.9	12.0	12.0	0.0	113	112	- 1	35	343a	348
161507	D-828	W.F.	1/11/55	4	44.0	42.0	-2.0	12.1	11.9	-0.2	118	114	- 4	39	365a	341
161508	D-829	W.F.	1/12/55	4	43.9	43.7	-0.2	12.0	11.9	-0.1	117	114	- 3	38	355a	369
161509	D-830	W.F.	1/13/55	4	42.1	43.4	+1.3	12.0	12.0	0.0	115	114	- 1	38	349a	359
161808	D-831	W.F.	1/14/55	4	43.9	43.4	-0.5	12.8	12.1	-0.7	115	112	- 3	39	360a	336
161809	D-832	W.F.	1/15/55	4	44.2	43.3	-0.9	12.7	12.1	-0.6	118	111	- 7	41	385a	337
161810	D-833	W.F.	1/16/55	4	43.6	43.9	+0.3	12.6	12.1	-0.5	116	116	0	39	368a	340
Current Mill Average:					43.3	43.5	+0.2	12.5	12.0	-0.5	115	114	- 1	39	361	348

Mill D-42-lb. Linerboard

Current Mill Average:

TABLE XXVIII

Mill E-42-lb. Linerboard

161286	E-120	WFLS	12/30/54	2	42.5	42.7	+0.2	13.0	11.5	-1.5	117	108	- 9	35	31	- 4	359a	272
161519	E-123	WFLS	1/ 13/55	2	43.6	43.4	-0.2	13.7	12.4	-1.3	112	106	- 6	35	30	- 5	392a	288
Current Mill Average:					43.1	43.1	0.0	13.4	12.0	-1.4	115	107	- 8	35	30	- 5	376	280

Current Mill Average:

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXIX
OF INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

Institute Data versus Mill Data

Caliper, points	IPC Mill Diff.	Bursting Strength, p.s.i. gage		G. E. Puncture, units		IPC Mill Diff.		IPC Mill Diff.		Elmendorf Tear, g./sheet				
		IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	In Mill Diff.	Across Mill Diff.	In Mill Diff.	Across Mill Diff.					
13.0	12.6	-0.4	106	117	+11	42	36	- 6	425a	395	-30	475a	399	-76
12.6	11.9	-0.7	109	113	+ 4	40	36	- 4	395a	359	-36	423a	409	-14
12.5	12.0	-0.5	107	116	+ 9	40	36	- 4	391a	364	-27	423a	392	-31
12.7	12.1	-0.6	107	112	+ 5	43	37	- 6	419a	373	-46	433a	397	-36
12.7	12.1	-0.6	107	115	+ 8	41	37	- 4	407	373	-34	439	399	-40

TABLE XXX

Mill G--42-lb. Linerboard

14.3	14.0	-0.3	105	108	+ 3	37	32	- 5	369a	374	+ 5	393a	400	+ 7
14.4	13.9	-0.5	98	100	+ 2	32	27	- 5	378a	347	-31	333a	373	+45
14.3	14.0	-0.3	98	99	+ 1	32	26	- 6	355a	352	- 3	331a	336	+ 5
14.5	14.1	-0.4	96	96	0	31	27	- 4	337a	327	-10	344a	410	+66
14.5	14.1	-0.4	99	96	- 3	32	27	- 5	337a	356	+19	327a	367	+40
14.3	14.0	-0.3	98	100	+ 2	32	27	- 5	362a	378	+16	353a	371	+18
14.5	14.0	-0.5	99	99	0	31	27	- 4	346a	343	- 3	347a	407	+60
14.4	14.0	-0.4	99	100	+ 1	32	28	- 4	355	354	- 1	347	381	+34

specimens which tore beyond the 3/8-inch limit.
on the totals of the individual readings.

INSTITUTE DATA versus MILL DATA

Institute Data versus Mill Data

File No.	Mill Code	Flt- ish	Date Made	Mch. No.	Basis Weight, lb.		Calliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		In Mill					
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill		Diff.	IPC	Mill	Diff.	
161270	F-92	W.B.	12/15/54	--	42.5	42.6	+0.1	13.0	12.6	-0.4	106	117	+11	42	36	- 6	425a	395
161345	F-93	W.B.	12/28/54	--	43.8	43.5	-0.3	12.6	11.9	-0.7	109	113	+ 4	40	36	- 4	395a	359
161346	F-94	W.B.	12/29/54	--	43.8	42.8	-1.0	12.5	12.0	-0.5	107	116	+ 9	40	36	- 4	391a	364
161347	F-95	W.B.	12/30/54	--	44.1	43.7	-0.4	12.7	12.1	-0.6	107	112	+ 5	43	37	- 6	419a	373
Current Mill Average:					43.5	43.2	-0.3	12.7	12.1	-0.6	107	115	+ 8	41	37	- 4	407	373

Mill F--42-lb. Linerboard

TABLE XXX

<u>Mill G--42-lb. Linerboard</u>																		
File No.	Mill Code	Flt- ish	Date Made	Mch. No.	Basis Weight, lb.		Calliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		In Mill					
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill		Diff.	IPC	Mill	Diff.	
161446	G-618	W.F.	1/ 5/55	2	44.4	44.5	+0.1	14.3	14.0	-0.3	105	108	+ 3	37	32	- 5	369a	374
161633	G-619	W.F.	12/30/54	2	42.6	43.0	+0.4	14.4	13.9	-0.5	98	100	+ 2	32	27	- 5	378a	347
161634	G-620	W.F.	12/30/54	2	43.0	43.2	+0.2	14.3	14.0	-0.3	98	99	+ 1	32	26	- 6	355a	352
161635	G-621	W.F.	1/ 3/55	2	43.1	43.2	+0.1	14.5	14.1	-0.4	96	96	0	31	27	- 4	337a	327
161636	G-622	W.F.	1/ 3/55	2	42.7	43.1	+0.4	14.5	14.1	-0.4	99	96	- 3	32	27	- 5	337a	356
161637	G-623	W.F.	1/ 8/55	2	43.0	43.2	+0.2	14.3	14.0	-0.3	98	100	+ 2	32	27	- 5	362a	378
161638	G-624	W.F.	1/ 8/55	2	42.8	43.0	+0.2	14.5	14.0	-0.5	99	99	0	31	27	- 4	346a	343
Current Mill Average:					43.1	43.3	+0.2	14.4	14.0	-0.4	99	100	+ 1	32	28	- 4	355	354

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXI

SUMMARY OF INDIVIDUAL TEST LOTS--JANUARY 1 THROUGH JANUARY 31, 1955

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight,		Caliper,		Bursting		G. E. Puncture, units	IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	IPC Mill			
					lb.	IPC	IPC Mill Diff.	IPC Mill Diff.	Strength, p.s.i.	Gege								
161811	H-482	WF1S	1/17/55	2	42.8	43.0	+0.2	12.4	12.0	-0.4	101	103	+2	34	33	-1	344	35
Current Mill Average:																		
					42.8	43.0	+0.2	12.4	12.0	-0.4	101	103	+2	34	33	-1	344	35

Mill H--42-lb. Linerboard

TABLE XXXII

Mill I--42-lb. Linerboard

161516	I-438	WF1S	1/11/55	1	43.4	42.5	-0.9	12.5	12.2	-0.3	116	110	-6	33	30	-3	321a	3
161517	I-439	WF1S	1/12/55	1	43.4	42.4	-1.0	12.4	12.1	-0.3	109	110	+1	33	30	-3	337a	3
161518	I-440	WF1S	1/13/55	1	42.3	42.2	-0.1	12.6	12.3	-0.3	111	107	+4	32	30	-2	319a	3
161540	I-441	WF1S	1/14/55	1	42.9	42.6	-0.3	12.8	12.5	-0.3	108	108	0	32	30	-2	313a	3
161596	I-442	WF1S	1/15/55	1	42.4	42.3	-0.1	12.7	12.3	-0.4	109	108	-1	31	29	-2	315a	3
161597	I-443	WF1S	1/15/55	1	42.4	42.2	-0.2	12.5	12.2	-0.3	109	108	-1	31	28	-3	295a	3
Current Mill Average:																		
					42.8	42.4	-0.4	12.6	12.3	-0.3	110	108	-2	32	30	-2	317	3

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

AL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

Institute Data versus Mill Data

per, ts	Mill Diff.	Bursting Strength, P.s.i. gage	IPC Mill Diff.	G. E. Puncture, units	IPC Mill Diff.	Elmsdorf Tear, g./sheet		IPC Mill Diff.		
						In	Across			
13.7	-0.1	112 106 - 6	35	32	- 3	377a	358 -19	385a	372	-13
13.2	0.0	117 109 - 8	33	30	- 3	353a	326 -27	385a	359	-26
12.8	-0.5	111 105 - 6	35	32	- 3	392a	353 -39	391a	420	+29
12.9	-0.5	113 106 - 7	34	33	- 1	400a	355 -45	381a	377	- 4
13.1	-0.3	113 107 - 6	34	32	- 2	380	348 -32	386	382	- 4

Mill J--42-lb. Linerboard

TABLE XXXIV

Mill K--42-lb. Linerboard

12.2	-0.4	117 119 + 2	38			388a	398 +10	420a	447	+27
12.2	-0.4	117 119 + 2	38			388	398 +10	420	447	+27

which tore beyond the 3/8-inch limit.
 totals of the individual readings.

TABLE XXXIII

SUMMARY OF INDIVIDUAL TEST LOTS - JANUARY 1 THROUGH JANUARY 31, 1955

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		El			
					IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.				
161260	J-511	B.F.	12/16/54	--	43.4	+0.3	13.8	13.7	112	106	- 6	35	32	- 3	377a	358
161261	J-512	B.F.	12.19/54	--	42.0	+0.4	13.2	13.2	117	109	- 8	33	30	- 3	353a	326
161687	J-513	B.F.	1/17/55	--	42.5	+0.5	13.3	12.8	111	105	- 6	35	32	- 3	392a	353
161688	J-514	B.F.	1/17/55	--	42.4	+0.8	13.4	12.9	113	106	- 7	34	33	- 1	400a	355
Current Mill Average:					42.6	+0.5	13.4	13.1	113	107	- 6	34	32	- 2	380	348

TABLE XXXIV

<u>Mill K--42-lb. Linerboard</u>																
161572	K-1		1/13/55	7	43.2	+0.1	12.6	12.2	-0.4	117	119	+ 2	38		388a	398
Current Mill Average:					43.2	+0.1	12.6	12.2	-0.4	117	119	+ 2	38		388	398

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XLIV
INDIVIDUAL TEST LOTS—JANUARY 1 THROUGH JANUARY 31, 1955

Institute Data versus Mill Data

Caliper, points	IPC Mill Diff.	Bursting Strength, p.s.i. gage	IPC Mill Diff.	G. E. Puncture, units	IPC Mill Diff.	Elmendorf Tear,		IPC Mill Diff.			
						In	Across				
						g./sheet					
12.4	12.0	111	106	- 5	34	328a	336	+ 8	357a	376	+19
12.5	12.0	111	107	- 4	34	333a	347	+14	347a	383	+36
12.5	12.1	109	106	- 3	34	326a	337	+11	347a	382	+35
12.6	12.0	110	106	- 4	33	315a	341	+26	347a	386	+39
12.1	12.0	111	107	- 4	34	321a	334	+13	359a	384	+25
12.3	11.8	109	105	- 4	33	321a	336	+15	360a	382	+22
12.3	12.2	110	106	- 4	32	337a	341	+ 4	359a	382	+23
12.8	12.2	110	113	+ 3	37	337a	324	-13	384a	386	+ 2
13.2	11.9	107	110	+ 3	37	337a	265	-72	374a	330	-44
12.5	12.0	110	107	- 3	34	328	329	+ 1	359	377	+18

Mill L-42-lb. Linerboard

imens which tore beyond the 3/8-inch limit.

m the totals of the individual readings.

TABLE DATA

SUMMARY OF INDIVIDUAL TEST LOTS - JANUARY 1 THROUGH JANUARY 31, 1955

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, P.s.i. gage		G. E. Puncture, units					
					IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.				
161257	L-322		12/ 1/54	1	41.9	42.3	+0.4	12.4	12.0	111	106	- 5	34	328a	336	+
161258	L-323		12/ 4/54	1	42.2	42.0	-0.2	12.5	12.0	111	107	- 4	34	333a	347	+1
161259	L-324		12/ 6/54	1	42.2	42.0	-0.2	12.5	12.1	109	106	- 3	34	326a	337	+1
161467	L-325		12/14/54	1	42.0	41.9	-0.1	12.6	12.0	110	106	- 4	33	315a	341	+2
161468	L-326		12/18/54	1	42.1	42.1	0.0	12.1	12.0	111	107	- 4	34	321a	334	+1
161617	L-327		1/ 3/55	1	42.1	41.9	-0.2	12.3	11.8	109	105	- 4	33	321a	336	+1
161618	L-328		1/ 7/55	1	42.2	42.2	0.0	12.3	12.2	110	106	- 4	32	337a	341	+1
161685	L-329		1/ 10/55	1	43.2	42.9	-0.3	12.8	12.2	110	113	+ 3	37	337a	324	-1
161686	L-330		1/14/55	1	42.2	41.5	-0.7	13.2	11.9	107	110	+ 3	37	337a	265	-7
Current Mill Average:					42.2	42.1	-0.1	12.5	12.0	110	107	- 3	34	328	329	+

Mill L-42-lb. Linerboard

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXVI

OF INDIVIDUAL TEST LOTS--JANUARY 1 THROUGH JANUARY 31, 1955

Institute Data versus Mill Data

Caliper, points	C Mill Diff.	Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet					
		IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	In Mill Diff.	Across Mill Diff.				
100	99	- 1	34	27	- 7	347a	325	-22	344a	350	+ 6
98	99	+ 1	35	30	- 5	345a	323	-22	353a	323	-30
114	106	- 8	36	27	- 9	355a	311	-44	379a	329	-50
102	96	- 6	38	30	- 8	381a	346	-35	387a	353	-34
104	95	- 9	32	25	- 7	351a	278	-73	355a	266	-89
104	99	- 5	35	28	- 7	356	317	-39	363	324	-39

Mill M--42-lb. Linerboard

TABLE XXXVII

Mill N--42-lb. Linerboard

111	108	- 3	38	38	358a	340	-18	387a	418	+31
108	109	+ 1	37	37	339a	351	+12	367a	421	+54
110	110	0	36	36	331a	356	+25	369a	408	+39
108	109	+ 1	38	38	331a	339	+ 8	375a	416	+41
118	111	- 7	38	38	353a	374	+21	381a	469	+88
114	112	- 2	39	39	342a	390	+48	399a	452	+53
111	110	- 1	38	38	342	358	+16	379	431	+52

ans which tore beyond the 3/8-inch limit.
the totals of the individual readings.

TAB. XXVI

SUMMARY OF INDIVIDUAL TEST LOTS - JANUARY 1 THROUGH JANUARY 31, 1955

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Tearing Strength, p.s.i. gage		G. E. Puncture, units							
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.		
161255	M-281	W.	12/19/54	2	42.2	41.2	-1.0	13.1	12.6	-0.5	100	99	-1	34	27	-7	347a	32
161256	M-282	W.	12/20/54	2	43.2	42.1	-1.1	13.3	12.7	-0.6	98	99	+1	35	30	-5	345a	32
161464	M-283	W.	1/3/55	4	43.1	42.5	-0.6	13.2	12.9	-0.3	114	106	-8	36	27	-9	355a	31
161465	M-284	W.	1/6/55	4	43.7	42.8	-0.9	13.9	13.4	-0.5	102	96	-6	38	30	-8	381a	34
161632	M-285	W.	1/12/55	4	42.4	41.9	-0.5	13.2	12.5	-0.7	104	95	-9	32	25	-7	351a	27
Current Mill Average:					42.9	42.1	-0.8	13.4	12.8	-0.6	104	99	-5	35	28	-7	356	31

Mill M--42-lb. Linerboard

TAB. XXVII

Mill N--42-lb. Linerboard

161266	N-124	D.F.	12/17/54	1	42.1	42.5	+0.4	12.0	11.8	-0.2	111	108	-3	38			358a	34
161267	N-125	WFLS	12/18/54	1	41.3	41.3	0.0	11.7	11.3	-0.4	108	109	+1	37			339a	35
161268	N-126	WFLS	12/26/54	1	41.6	41.5	-0.1	11.9	11.5	-0.4	110	110	0	36			331a	35
161269	N-127	WFLS	12/26/54	1	41.7	41.2	-0.5	11.9	11.4	-0.5	108	109	+1	38			331a	35
161752	N-128	WFLS	1/16/55	1	42.0	42.2	+0.2	12.1	12.0	-0.1	118	111	-7	38			353a	37
161753	N-129	WFLS	1/16/55	1	41.6	42.0	+0.4	12.3	12.1	-0.2	114	112	-2	39			342a	35
Current Mill Average:					41.7	41.8	+0.1	12.0	11.7	-0.3	111	110	-1	38			342	35

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

INDIVIDUAL TEST LOTS - JANUARY 1 THROUGH JANUARY 31, 1955

Institute Data versus Mill Data

Caliper, points IPC Mill Diff.	Bursting Strength, p.s.i. Gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		
	IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	In	Across	
	<u>Mill O--42-lb. Linerboard</u>						
1.9 11.7 -0.2	116	110	- 6	36	345a 320	373a 367	- 6
1.4 11.3 -0.1	110	107	- 3	38	419a 367	365a 369	+ 4
2.9 12.7 -0.2	121	116	- 5	42	449a 372	439a 396	-43
1.7 11.6 -0.1	109	107	- 2	40	373a 345	411a 401	-10
2.0 11.8 -0.2	114	110	- 4	39	396	351 397	383
							-14

TABLE XXXIX

Mill P--42-lb. Linerboard

No samples submitted.

TABLE XXXX

Mill Q--42-lb. Linerboard

.1 12.6 -0.5	119	105	-14	29	311a 337	+26	384a 407	+23
.1 12.6 -0.5	119	105	-14	29	311 337	+26	384 407	+23

ens which tore beyond the 3/8-inch limit.

the totals of the individual readings.

TABLE XII

TEST LOTS--JANUARY 1 THROUGH JANUARY 31, 1955

stitute Data versus Mill Data

Caliper, points	Bursting Strength, P.s.i. gage	G. E. Puncture, units	IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	In Elmendorf Tear, g./sheet	IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.
0 13.5 -0.5	102 102	40 42	0 + 2	393a 359	-34 401a	397 - 4			
0 13.5 -0.5	102 102	40 42	0 + 2	393 359	-34 401	397 - 4			
<u>1 E--44/46-lb. Drum Linerboard</u>									
<u>Miscellaneous</u>									
<u>Mill E--30-lb. Linerboard</u>									
3 9.3 -0.5	91 88	23 23	- 3 0	285a 224	-61 312a	252 -60			
<u>Mill E--33-lb. Linerboard</u>									
7 10 -0.9	81 80	27 27	- 1 0	290a 248	-42 273a	248 -25			

is which tore beyond the 3/8-inch limit.

ie totals of the individual readings.

SUMMARY OF INDIVIDUAL TEST LOTS---JANUARY 1 THROUGH JANUARY 31, 1955

TABLE XI

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units						
					IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.					
161303	E-121	WFLS	1/ 3/55	2	45.9	45.9	0.0	14.0	13.5	-0.5	102	102	0	40	42	+ 2	393a
		Current Mill Average:			45.9	45.9	0.0	14.0	13.5	-0.5	102	102	0	40	42	+ 2	393

Mill E--44/46-lb. Drum Linerboard

Miscellaneous

Mill E--30-lb. Linerboard

161684	E-124	WFLS	1/19/55	2	31.7	31.9	+0.2	9.8	9.3	-0.5	91	88	- 3	23	23	0	285a
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Mill E--33-lb. Linerboard

161466	E-122	WFLS	1/12/55	2	34.8	35.2	+0.4	10.9	10	-0.9	81	80	- 1	27	27	0	290a
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^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

