

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

SUMMARY OF DATA  
OBTAINED IN BASE-LINE STUDY ON CORRUGATING MEDIUM  
DURING FEBRUARY AND MARCH, 1966

Project 1108-17

Report

to

TECHNICAL DIVISION  
FOURDRINIER KRAFT BOARD INSTITUTE, INC.

April 14, 1966

Appleton, Wisconsin

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## PART I. GENERAL

## A. Participation Data

Period	Current Report	Previous Report
	Feb. - Mar., 1966	Dec., 1965 - Jan., 1966
Number of machines	30	28
Number of rolls	207	169

## B. Distribution of Mediums by Type

Semichemical	26	25
Bogus	3	3
Kraft	1	-

## C. New Participants

None

1. Waldorf (St. Paul No. 5)

## D. Nonparticipants

1. Chesapeake  
(West Point)1. Chesapeake  
(West Point)2. Olin Mathieson  
(West Monroe No.  
1 and No. 2)2. Owens Illinois  
(Big Island No. 3)3. St. Regis  
(Coshocton No. 1)3. St. Joe  
(Port St. Joe No. 1)4. St. Regis  
(Coshocton No. 1)5. West Virginia Pulp  
and Paper (Covington  
No. 6 and Williamsburg  
No. 2)

PART II. QUALITY DATA

A. Summary of Physical Test Data

Test	Report	Current Machine Data			12-Month	
		Max.	Min.	Av.	Cum. FKI	Av.
Basis Weight, lb./1000 ft. <sup>2</sup>	Cur.	29.3	26.1	27.2		27.0
	Prev.	28.5	25.8	26.9		27.0
Caliper, pt.	Cur.	11.9	8.8	10.4		10.3
	Prev.	12.0	9.0	10.5		10.3
Concora Flat Crush, p.s.i.	Cur.	40.6	31.2	35.1		35.3
	Prev.	40.0	30.7	34.8		35.3
Single-Face Flat Crush, p.s.i.	Cur.	37.4	28.4	32.0		32.1
	Prev.	36.8	27.5	31.5		32.1

B. Summary of Runnability Data

Runnability		Current Report			Previous Report		
Speed, f.p.m.	Tension, lb./in.	No.	%	Cum., %	No.	%	Cum., %
<600	Min.	14	6.8	100.0	14	8.3	100.0
600	Min.	30	14.5	93.2	27	16.0	91.7
600	1/2	53	25.6	78.7	40	23.7	75.7
600	1	29	14.0	53.1	23	13.6	52.0
600	1-1/2	81	39.1	39.1	65	38.5	38.5

C. Trends in Quality Data in Current Report  
 with Reference to Data from Previous Report

Basis Weight:	Increased from 26.9 to 27.2 lb.	} no signif- icant change
Caliper:	Decreased from 10.5 to 10.4 pt.	
Concora Flat Crush:	Increased from 34.8 to 35.1 p.s.i.	
Single-Face Flat Crush:	Increased from 31.5 to 32.0 p.s.i.	
Runnability:		
<600 f.p.m. at minimum tension:	Decreased from 8.3 to 6.8%	
600 f.p.m. at minimum tension:	Decreased from 16.0 to 14.5%	
600 f.p.m. at 1/2 lb./in. tension:	Increased from 23.7 to 25.6%	
600 f.p.m. at 1 lb./in. tension:	Increased from 13.6 to 14.0%	
600 f.p.m. at 1-1/2 lb./in. tension:	Increased from 38.5 to 39.1%	

PART III. CONCORA CALIBRATION DATA

A. Summary of Data

Range, %	Current Report		Previous Report		6-Month Average % <sup>a</sup>
	No. of Machines	%	No. of Machines	%	
± 1.0	4	14.3	6	23.1	18.0
± 2.5	16	57.1	14	53.8	47.4
± 5.0	20	71.4	22	84.6	76.9
± 10.0	26	92.9	25	96.2	94.9
± Max.	28	100.0 <sup>b</sup>	26	100.0 <sup>c</sup>	100.0 <sup>d</sup>

<sup>a</sup>Average for three previous bimonthly periods excluding the current period.

<sup>b</sup>Maximum percentage difference was + 27.7.\*

<sup>c</sup>Maximum percentage difference was + 33.9.\*

<sup>d</sup>Maximum percentage difference was + 33.9.\*

B. Trends in Calibration Data

Agreement between Institute and mill Concora flat crush data is comparable to that for the previous period and the six-month average.

\*Lack of conditioning after fluting may be responsible for the large maximum difference.