



# Containerboard Interlaboratory Testing Program

## Participant Summary Report #665 - February 2025

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<a href="#">201</a>	<a href="#">BO18</a>	<a href="#">Top to Bottom Box Compression Strength, Corrugated Boxes</a>
<a href="#">202</a>	<a href="#">EC16</a>	<a href="#">Edgewise Compressive Strength, by T811, Corrugated Board</a>
<a href="#">203</a>	<a href="#">EC16</a>	<a href="#">Edgewise Compressive Strength by T839, Corrugated Board</a>
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<a href="#">215</a>	<a href="#">42L2</a>	<a href="#">Ring Crush, 42 lb Linerboard</a>
<a href="#">217</a>	<a href="#">31K1</a>	<a href="#">Ring Crush, 31 lb Linerboard</a>
<a href="#">223</a>	<a href="#">42L2</a>	<a href="#">STFI, 42 lb Linerboard</a>
<a href="#">225</a>	<a href="#">31K1</a>	<a href="#">STFI, 31 lb Linerboard</a>
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<a href="#">231</a>	<a href="#">42L</a>	<a href="#">Internal Bond, 42 lb Linerboard</a>
<a href="#">234</a>	<a href="#">42L</a>	<a href="#">COF Inclined Plane (Slide Angle), 42 lb Linerboard</a>
<a href="#">237</a>	<a href="#">42L2</a>	<a href="#">Air Resistance, 42 lb Linerboard</a>
<a href="#">240</a>	<a href="#">CM13</a>	<a href="#">Flat Crush Strength (CMT), 26 lb Corrugating Medium</a>
<a href="#">250</a>	<a href="#">CM13</a>	<a href="#">Fluted Edge Crush Strength (CFC), 26 lb Corrugating Medium</a>
<a href="#">255</a>	<a href="#">CM13</a>	<a href="#">Ring Crush (RCT), 26 lb Corrugating Medium</a>
<a href="#">261</a>	<a href="#">CM13</a>	<a href="#">STFI, 26 lb Corrugating Medium</a>

**Collaborative Testing Services, Inc.  
CONTAINERBOARD INTERLABORATORY TESTING PROGRAM**

**INTRODUCTION**

The Interlaboratory Testing Program for Containerboard is operated and maintained by Collaborative Testing Services, Inc. (CTS), with technical guidance provided by the Containerboard Group of the American Forest & Paper Association. The tests are conducted on a monthly basis.

For these tests samples of linerboard and corrugating medium, that each have been separately randomized from narrow rolls, are distributed for testing weekly. One weight of medium (26 lb.) is used for Concora Flat Crush Strength, Corrugated Fluted Crush Strength, Ring Crush Strength, and STFI Compression. Two weights of linerboard are tested each month for Mullen Burst, Ring Crush, and STFI Compression: 42 lb. - every month; 35 lb. and 56 lb. - alternate months. The participants return their test results for analysis and receive a monthly report.

Please refer to the section, "EXPLANATION OF TABLES", for definitions of terms and guidelines to interpreting the results.

**USE OF AVERAGE MEAN AS A COLLABORATIVE REFERENCE VALUE**

The samples of linerboard and corrugating medium, which have been randomized and placed in sealed packages for distribution in this program, may be used as collaborative reference materials. The values most representative of each material are the Cumulative Grand Means in the latest reports, given at the bottom right of each table. Comparisons can only be made within one lot of material; therefore check your measurements against the Cumulative Grand Means with the same lot code as on the packages being tested.

<b>Material</b>	<b>Lot Code</b>	<b>Dates in Use</b>
26# Corrugating Medium	CM13	September 2023 - Current
	CM12	June 2022 - August 2023
31# Linerboard	31K1	August 2024 - Current
	35E3	June 2022 - June 2024
42# Linerboard	42L2	November 2024 - Current
	42L1	July 2024 - October 2024
52# Linerboard	52J2	September 2024 - Current
	52J1	November 2023 - July 2024

**ABOUT CTS**

Founded in 1971, Collaborative Testing Services, Inc. (CTS) is a privately-owned company that specializes in interlaboratory tests for a wide variety of industries including rubber, plastics, fasteners and metals, containerboard, paper, color, agriculture, hemp, and wine, as well as proficiency tests for forensic laboratories. All of the tests are designed to assist organizations in achieving and maintaining quality control objectives. Labs from the U.S., as well as more than 100 countries, currently participate in the CTS programs.

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## **EXPLANATION OF TABLES**

Each analysis is divided into three time spans. On the left side of the table are the individual laboratory results for each week of the month; in the center are each lab's statistical data for the month; and on the right are each lab's cumulative data for up to 16 weeks. At the bottom of the table are the consensus statistics for all the participants for each of the three time spans.

### **Definitions of Terms Used**

#### **Weekly Results**

##### **Laboratory Data**

- |              |  |
|--------------|--|
| WebCode      | - A six character laboratory identifier used to maintain information on a confidential basis. The WebCode is unique for each cycle and will change for each report. Your WebCode can be found in your Individual Report (Current Month Performance Report) and your datasheet. |
| Weekly Means | - The average of the test results obtained by the participant for each week that data were reported.   |

##### **Consensus Data**

- |               |   |
|---------------|---|
| Wk Mean       | - For each week, the average of the Means for all the participants, excluding those laboratories flagged with an 'X'.   |
| Avg SD        | - For each week, the average of the within-laboratory standard deviations (SD's) for all the participants, excluding those laboratories flagged with an 'X'. The Avg SD is an indication of the variation of measurements within an average laboratory. |
| SD btwn Labs  | - For each week, the standard deviation of the laboratory Means about the Wk Mean, excluding those laboratories flagged with an 'X'. The SD LABS is an indication of the precision of measurement between the laboratories.                             |
| Labs Incl'd   | - The number of laboratory Means included in the Wk Mean for that week.   |
| Labs Excl'd   | - The number of laboratory Means reported but excluded from the Wk Mean for that week because of outlying results ('X' following Mean).   |
| Labs not rcvd | - The number of laboratories failing to report for that week.   |

#### **Monthly Results**

##### **Laboratory Data**

- |       |   |
|-------|---|
| Mean  | - For each laboratory, the average of all the weekly Means reported for this month.   |
| CPV   | - <b>Comparative Performance Value</b> , an indication of how well a laboratory's Mean agrees with the other participants. The CPV is a ratio indicating the number of standard deviations from the consensus mean (Monthly Mean). The closer a laboratory's CPV is to zero, the more consistent its results are with the other participants' data. |
| SD    | - For each laboratory, the average of the weekly within-lab standard deviations (SD's) for all reported Weekly Means this month.  |
| SD Wk | - The standard deviation among the laboratory's weekly Means, including those Means flagged with an 'X'. The SD Wks is an indication of that laboratory's ability to obtain constant results from week to week.   |

##### **Consensus Data**

- |               |   |
|---------------|---|
| Month Mean    | - The average of the Means for all the participants, excluding those laboratories flagged with an 'X,' reporting data for this month.   |
| Avg SD        | - For the current month, the average of the within-laboratory standard deviations (SD's) for all the participants, excluding those laboratories flagged with an 'X'.          |
| SD btwn Labs  | - For the current month, the standard deviation of the laboratory Means about the Month Mean, excluding those laboratories flagged with an 'X'.                               |
| SD btwn Group | - For the current month, the standard deviation of the laboratory Means within the group about the Month Mean, excluding those laboratories flagged with an 'X'.              |
| SD btwn Wks   | - For the current month, the average of the laboratory between week standard deviations (SD Wks') for all the participants, excluding those laboratories flagged with an 'X'. |

## Cumulative Results

### Laboratory Data

- |       |   |
|-------|---|
| Mean  | - For each lab, the average of all the monthly Means reported for the weeks shown.  |
| CPV   | - <b>Comparative Performance Value</b> , an indication of how well a laboratory's cumulative mean agrees with the other participants. The CPV is a ratio indicating the number of standard deviations from the consensus mean (Monthly Mean). |
| SDr   | - For each laboratory, the average of the weekly within-lab standard deviations (SD's) for the weeks shown.   |
| SD Wk | - The standard deviation among the laboratory's weekly Means for the weeks shown, including those Means flagged with an 'X'. The SD Wks is an indication of that laboratory's ability to obtain constant results from week to week.           |
| Wks   | - The number of weeks included in the cumulative period.  |
| Inst  | - The two letter instrument code. Codes are summarized at the bottom of the last analysis page.   |

### Consensus Data

- |              |  |
|--------------|--|
| Grand Mean   | - The average of the Means for all the participants, excluding those laboratories flagged with an 'X,' reporting data for the number of weeks included in the cumulative period. |
| Avg SD       | - For the cumulative period, the average of the within-laboratory standard deviations (SD's) for all the participants, excluding those laboratories flagged with an 'X'.         |
| SD btwn Labs | - For the cumulative period, the standard deviation of the laboratory Means about the Month Mean, excluding those laboratories flagged with an 'X'.                              |
| SD btwn Wks  | - For the cumulative period, the average of the laboratory between week standard deviations for all the participants, excluding those laboratories flagged with an 'X'.          |
| Labs Incld   | - The number of laboratory Means included in the Grand Mean.   |

**Any laboratory that receives a 'flag' following a mean or standard deviation should refer to the chart below for an explanation of the data flag symbol:**

<u>Flag</u>	<u>Explanation</u>
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Data Flags "**X**" and "**\***" indicate a laboratory's performance on an average value differed from the consensus.

Data Flags "**H**" and "**L**" indicate a laboratory's performance on a standard deviation differed from the consensus.

Flags assigned to Weekly Means, Monthly Mean and Cumulative Mean:

- X** Excluded from the weekly means, monthly means and/or the cumulative mean. Immediate review of data and/or testing procedure is recommended.
- \*** Included in the weekly means, monthly means and/or the cumulative mean; however, lab should review testing procedure and monitor future results.

Flags assigned to Weekly Means:

- H** Indicates high within-laboratory standard deviation. The laboratory SD for each week is not shown, but laboratory average SD and consensus average SD values are shown.
- L** Indicates low within-laboratory standard deviation. The laboratory SD for each week is not shown, but laboratory monthly average SD and consensus average SD values are shown.

Flags assigned to Monthly SD Wks and Cumulative SD Wks:

- H** Indicates high variability between weekly means (high week-to-week variation).
- L** Indicates low variability between weekly means (low week-to-week variation).



Containerboard Interlaboratory Testing Program  
Analysis 201

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**Top to Bottom Box Compression Strength, Corrugated Boxes - BO18**  
**TAPPI Official Test Method T804**

WebCode	Monthly Results			Cumulative Results					
	Mean	CPV	SD	Mean	CPV	SD	Months	Months	Inst
28LZV6	603.9	0.90	19.64	587.6	0.72	23.07	2	LS	
2DDA63	627.8	1.42	11.80	615.4	1.68	17.54	2	EX	
4FDA36	541.8	-0.47	33.51	531.5	-1.24	14.57	2	ER	
637LP2	544.6	-0.41	21.45	550.6	-0.58	8.49	2	ER	
69PT4Z	451.3	-2.47 *	53.13	464.4	-3.58 X	18.55	2	TB	
9FZ8H2	602.8	0.87	21.74	599.0	1.11	5.37	2	LM	
A2QX8W	588.7	0.56	11.96	588.7	0.75	0.00	1	ER	
ARMXHV	593.1	0.66	30.92	586.7	0.68	9.17	2	LO	
BAZLKV	609.1	1.01	45.12	611.3	1.54	3.04	2	LG	
BLWREU	656.8	2.06 *	28.98	662.4	3.32 X	7.97	2	LG	
BPVY4X	591.0	0.61	45.69	599.7	1.14	12.26	2	EX	
CYGUAQ	589.2	0.57	26.39	560.4	-0.23	40.64	2	EX	
FUUD8N	549.4	-0.31	22.57	558.0	-0.32	12.16	2	LG	
GQQVTT	512.2	-1.13	42.95	514.3	-1.84	2.86	2	ER	
GRHYDM	587.2	0.53	4.52 L	587.8	0.72	0.89	2	EX	
HU43LK	568.8	0.12	33.82	578.1	0.38	13.15	2	EX	
K6GU9L	579.9	0.36	42.95	576.2	0.32	5.23	2	LM	
LDL9JL	544.0	-0.43	16.01	557.5	-0.34	19.03	2	LG	
MR2TGK	521.4	-0.92	24.17	546.6	-0.71	35.64	2	EX	
PQHQMG	605.6	0.93	34.31	596.9	1.04	12.35	2	ET	
RV4DGD	543.4	-0.44	33.10	539.7	-0.96	5.23	2	LG	
TLYMCG	562.0	-0.03	28.87	564.9	-0.08	4.10	2	EX	
TVMGND	464.0	-2.19 *	37.36	504.3	-2.19 *	56.99	2	ES	
TYFPND	534.9	-0.63	16.58	548.1	-0.66	18.65	2	LS	
VC7UFB	537.0	-0.58	41.03	536.9	-1.05	0.14	2	LG	
X9ELZ7	566.1	0.06	39.01	578.1	0.38	16.92	2	EX	
XBJ9DB	573.3	0.22	45.77	576.2	0.32	4.07	2	LG	
Y7JDD9	523.5	-0.88	43.09	550.3	-0.59	37.93	2	ER	
<b>Consensus (All Labs) Results</b>									
Month Mean		563.32		Grand Mean		567.10			
Avg SD		32.90		Avg SD Months		20.56			
SD btwn Labs		45.37		SD btwn Labs		28.69			
Labs Incl'd		28		Labs Incl'd		26			



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**Top to Bottom Box Compression Strength, Corrugated Boxes - BO18**  
TAPPI Official Test Method T804

Consensus By Method

Test Method	Group Mean	SD btwn Group	Difference from Grand Mean	Labs Included
Hot melt adhesive sealing	561.64	53.41	1.68	8
Clip sealing	562.69	44.06	0.63	19
Staple sealing	588.68	0.00	25.36	1

Key to Instrument Codes Reported by Participants

ER	Emerson 6200 Series	ES	Emerson 8510
ET	Emerson 7200	EX	Emerson Apparatus (Model not specified)
LG	TLS / L.A.B. Validator Series	LM	Lansmont 122-15k
LO	Lansmont 152-30k	LS	Lansmont Squeezer
TB	TMI Monitor/Compression Tester, Model 17-70		



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**Edgewise Compressive Strength, by T811, Corrugated Board - EC16**  
TAPPI Official Test Method T811

WebCode	Monthly Results				Cumulative Results					
	Mean	CPV	SD		Mean	CPV	SD	Months	Months	Inst
6X6PV2	52.5	1.36	1.45	L	53.3	1.69	1.69	4	4	XX
CYGUQAQ	48.0	0.12	2.90		46.2	-0.54	1.72	4	4	LC
GRHYDM	49.1	0.41	0.63	L	49.4	0.45	0.42	2	2	TL
MR2TGK	50.0	0.67	3.30		49.5	0.49	1.21	4	4	LC
RV4DGD	47.8	0.07	2.86		49.2	0.41	2.56	4	4	EX
TYFPND	43.3	-1.20	5.89	H	45.3	-0.80	1.61	4	4	LD
W9H2GD	51.3	1.02	3.17		50.2	0.70	1.20	4	4	XX
XPZ8HB	42.9	-1.30	2.12		45.1	-0.87	1.99	4	4	TS
Y7JDD9	43.5	-1.15	5.57	H	43.0	-1.53	0.99	4	4	EN
Consensus (All Labs) Results										
Month Mean	47.58				Grand Mean	47.90				
Avg SD	3.50				Avg SD Months	1.60				
SD btwn Labs	3.58				SD btwn Labs	3.22				
Labs Incl'd	9				Labs Incl'd	9				

**Key to Instrument Codes Reported by Participants**

EN	Emerson 2200	EX	Emerson (model not specified)
LC	L&W Crush Tester 48	LD	L&W Crush Tester 248
TL	Tech-Lab Systems Compression	TS	TMI Digital Crush Tester, Model 17-56
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program  
Analysis 203

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**Edgewise Compressive Strength by T839, Corrugated Board - EC16**  
TAPPI Official Test Method T839

WebCode	Monthly Results				Cumulative Results					
	Mean	CPV	SD		Mean	CPV	SD	Months	Months	Inst
26ZFQZ	36.7	-3.83 X	4.02	H	38.3	-3.63 X	1.16	4	XX	
28LZV6	52.0	0.23	0.60	L	49.7	-0.28	2.92	4	EM	
2DDA63	47.8	-0.89	6.12	H	48.6	-0.62	0.87	4	CT	
4FDA36	50.5	-0.16	1.00	L	50.6	-0.04	0.69	4	EM	
637LP2	51.6	0.13	2.73		51.3	0.18	3.32	4	LD	
69PT4Z	54.6	0.92	0.45	L	54.7	1.18	0.20	L	4	LD
9FZ8H2	53.3	0.59	2.51		52.1	0.40	1.42	4	TG	
A2QX8W	56.2	1.34	2.33		55.4	1.37	0.92	3	LD	
ARMXHV	49.2	-0.51	1.56		44.3	-1.88	3.32	4	LD	
BAZLKV	54.9	1.02	1.20		51.2	0.15	2.55	4	BU	
BLWREU	50.0	-0.29	2.65		50.0	-0.21	2.88	4	EM	
CYGUAAQ	55.4	1.13	2.92		54.5	1.11	0.73	4	LC	
EUXGJN	110.8	15.81 X	1.98		69.8	5.58 X	27.35 H	4	TG	
FUUD8N	54.0	0.75	3.54		51.8	0.33	3.01	4	EM	
FZF99R	49.7	-0.36	0.80	L	51.1	0.12	1.20	4	TU	
GQQVTT	44.5	-1.76	2.10		44.5	-1.81	2.10	4	LD	
K6GU9L	47.1	-1.06	0.82	L	47.2	-1.01	0.55	4	EM	
L4GZ4L	50.7	-0.11	2.67		51.9	0.36	1.58	4	EM	
LDL9JL	53.3	0.58	1.64		55.6	1.43	1.60	4	MK	
MR2TGK	48.5	-0.69	1.38		50.0	-0.19	2.41	4	LC	
NBUT9G	53.7	0.69	1.51		53.7	0.88	0.74	4	LC	
PQHQMG	53.2	0.56	1.27		52.7	0.59	1.27	4	TD	
RV4DGD	47.0	-1.09	1.77		49.0	-0.50	2.09	3	LY	
TLYMCG	43.7	-1.97 *	0.93	L	44.5	-1.82	2.89	4	LD	
TVMGND	52.6	0.39	0.94	L	52.8	0.61	1.90	4	LD	
TYFPND	46.2	-1.31	2.37		48.3	-0.71	1.42	4	LD	
UGZFM	57.7	1.74	3.60		57.2	1.91 *	0.57	4	TE	
W9H2GD	52.1	0.25	3.29		51.1	0.12	1.61	4	XX	
WQECPA	57.4	1.67	2.55		55.2	1.31	1.50	4	EM	
XPZ8HB	50.7	-0.11	3.49		47.3	-1.01	2.43	4	TS	
XTYHEB	43.9	-1.90	3.37		45.7	-1.47	1.23	4	BU	
Y7JDD9	49.6	-0.40	2.64		48.5	-0.66	1.23	4	EN	
YYP9K8	53.4	0.60	1.66		51.3	0.18	1.98	3	LD	



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**Edgewise Compressive Strength by T839, Corrugated Board - EC16**  
TAPPI Official Test Method T839

**Consensus (All Labs) Results**

Month Mean	51.10	Grand Mean	50.70
Avg SD	2.45	Avg SD Months	1.92
SD btwn Labs	3.77	SD btwn Labs	3.42
Labs Incl'd	31	Labs Incl'd	31

**Key to Instrument Codes Reported by Participants**

BU	Buchel Digital Crush Tester	CT	Con-Ten
EM	Emerson 1200 Series	EN	Emerson 2200
LC	L&W Crush Tester 48	LD	L&W Crush Tester 248
LY	L&W 830	MK	Mark-10 ESM303
TD	TMI Digital Crush Tester, Model 17-09	TE	TMI Monitor/Compression Tester, Model 17-60
TG	TMI Digital Crush Tester, 17-76	TS	TMI Digital Crush Tester, Model 17-56
TU	TMI Universal Crush Tester (TMI K440)	XX	Instrument make/model not specified by lab



## Containerboard Interlaboratory Testing Program

Analysis 205

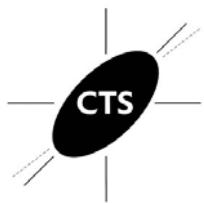
## Bursting Strength (Mullen), 42 lb Linerboard - 42L2

TAPPI Official Test Method T807

Report #665

February 2025

WebCode	Weekly Means				Monthly Results					Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst	
2DDA63	113.5	117.5	122.5	117.0	117.6	0.61	8.6	3.7	118.8	0.96	9.4	3.0	16	XX	
2P7QU4	137.4 <b>XH</b>	143.3 <b>X</b>	143.5 <b>X</b>	140.1 <b>X</b>	141.1	5.88 <b>X</b>	10.3	2.9	141.5	6.48 <b>X</b>	10.4	3.5	12	XX	
2RTHP8	108.8	109.6	108.6	108.4	108.9	-1.36	8.9	0.5	106.6	-1.99 <b>*</b>	8.6	3.5	6	AX	
2RTHP8_AL	114.1	113.4	111.6 <b>H</b>	112.8	113.0	-0.43	9.9	1.1	111.7	-0.76	8.8	2.3	6	AL	
2T4CL8	107.3	105.6	109.1	109.1	107.8	-1.60	8.3	1.7	110.4	-1.07	7.8	3.4	16	XX	
3ELUD4	125.1 <b>H</b>	127.3 <b>*</b>	138.0 <b>X</b>	135.3 <b>X</b>	131.4	3.71 <b>X</b>	10.6	6.2 <b>H</b>	131.3	4.00 <b>X</b>	8.4	7.1 <b>H</b>	16	ME	
3QFB36_AL	121.5	119.6	121.1	120.2	120.6	1.28	9.1	0.9	120.7	1.44	8.4	2.5	15	AL	
3W24D4_AL	122.3	118.2	115.6	116.3	118.1	0.72	6.6	3.0	118.3	0.84	7.7	3.2	16	AL	
4DQH83	137.5 <b>X</b>	136.4 <b>X</b>	145.3 <b>X</b>	138.8 <b>X</b>	139.5	5.53 <b>X</b>	10.5	4.0	137.0	5.39 <b>X</b>	10.9	5.4	16	AX	
637LP2	122.9	115.4	114.2	122.4	118.7	0.86	10.2	4.6	116.8	0.47	9.0	3.0	16	AH	
69PT4Z	108.1	109.8	104.8 <b>*</b>	102.9 <b>*</b>	106.4	-1.92	6.8	3.1	108.4	-1.56	7.4	3.0	16	XX	
6FQ8N2	107.2	104.2 <b>*</b>	110.9	108.1	107.6	-1.64	6.6	2.8	109.3	-1.33	7.7	2.3	16	LA	
772U93_AL	107.2	107.7	105.4	107.5	106.9	-1.79	4.9	1.0	108.5	-1.53	7.2	2.9	16	XX	
7M6GP4_AL	108.0	106.7	104.3 <b>*</b>	106.9 <b>H</b>	106.5	-1.90	9.5	1.5	107.6	-1.76	8.5	3.3	16	AL	
8T69HX	122.2 <b>L</b>	123.4	123.0	120.1	122.2	1.63	6.3	1.5	122.4	1.83	6.6	2.8	16	LA	
9E6NFZ_AL	108.9 <b>L</b>	112.5	112.9	100.6 <b>XH</b>	108.7	-1.40	15.7	5.7 <b>H</b>	114.6	-0.06	10.2	5.2	16	AL	
9XDZ2V	117.7	127.4 <b>*</b>	122.7	122.3	122.5	1.71	8.6	4.0	121.8	1.69	7.7	2.6	12	XX	
A2QX8W	112.3	114.4 <b>L</b>	114.1	119.6	115.1	0.05	7.4	3.1	116.0	0.29	6.9	2.5	12	LA	
A2QX8W_AL	112.1	111.2	117.6	113.1	113.5	-0.32	7.7	2.8	112.2	-0.65	8.2	3.6	12	AK	
BK6PUY	119.9	123.0	118.8	119.7	120.3	1.22	8.4	1.9	120.3	1.34	8.3	3.5	16	LC	
BQ72PW	113.6	115.0	110.9	110.9	112.6	-0.52	5.5	2.0	111.1	-0.90	7.0	2.8	16	LC	
C8RWVR_AL	119.7	118.8	120.6	112.6	117.9	0.68	8.4	3.6	117.9	0.75	9.3	3.6	16	AL	
CYGUAQ	111.9	116.9	116.3	112.0	114.3	-0.14	7.9	2.7	113.8	-0.26	7.2	3.0	16	AH	
EMZHFT	111.7	112.2	111.8	111.6	111.8	-0.69	9.6	0.3 <b>L</b>	111.2	-0.87	8.3	2.0	16	LC	
F6R8NR	108.3	111.1	116.3	<b>No Data</b>	111.9	-0.68	6.6	4.1	111.0	-0.94	7.6	2.9	7	LJ	
F6R8NR_AL	126.8 <b>*</b>	121.7	121.7	<b>No Data</b>	123.4	1.91	8.3	2.9	123.3	2.05 <b>*</b>	9.2	1.9	6	AL	
FBFRUT_AL	118.9	107.2 <b>H</b>	115.9	120.3 <b>L</b>	115.6	0.15	16.4	5.9 <b>H</b>	117.9	0.74	10.4	3.8	16	AL	
FLY68Q	117.1	121.1	115.4	119.1	118.2	0.73	6.6	2.5	116.8	0.49	7.7	2.9	12	LA	
FLY68Q_AL	114.3	113.0 <b>L</b>	113.0	113.7	113.5	-0.32	5.0	0.6	113.8	-0.26	5.5	1.4	12	AL	
GQQVTT	114.2	111.0	103.8 <b>*</b>	111.8	110.2	-1.06	7.3	4.5	110.4	-1.08	8.6	3.5	16	LZ	
JF2QQL	115.0	113.9	112.7	116.4	114.5	-0.09	5.4	1.6	114.9	0.03	5.1	1.0	16	TP	
JQ3ABM	115.3	113.5	115.9	116.2	115.2	0.08	8.2	1.2	116.0	0.28	7.9	2.2	16	LB	
LV67PJ	115.6	115.5	116.4	116.6	116.0	0.25	5.2	0.6	115.9	0.25	5.5	0.8 <b>L</b>	16	AH	
MLFTAK	123.4	120.0	120.0	118.4	120.5	1.25	7.0	2.1	120.9	1.47	6.4	2.5	6	AH	
P9YRHJ_AL	100.3 <b>X</b>	102.1 <b>*L</b>	92.8 <b>X</b>	94.2 <b>XL</b>	97.3	-3.95 <b>X</b>	3.9	4.5	105.7	-2.21 <b>*</b>	4.7	6.4	16	AL	



## Containerboard Interlaboratory Testing Program

Analysis 205

## Bursting Strength (Mullen), 42 lb Linerboard - 42L2

TAPPI Official Test Method T807

Report #665

February 2025

WebCode	Weekly Means				Monthly Results					Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst	
PHMKTF	118.1	123.4	118.9	115.0	118.9	0.89	7.4	3.5	117.6	0.67	7.8	3.7	16	LC	
PHMKTF_AL	119.9	124.1	119.8	119.8	120.9	1.35	9.6	2.2	118.7	0.93	8.8	2.9	16	AL	
PYTT9G	114.7	115.3	115.9	L 114.5	115.1	0.04	5.1	0.6	115.5	0.16	5.0	0.6	L 16	LA	
Q6TQWC_AL	117.9	117.1	113.2	114.7	115.7	0.18	8.3	2.1	112.8	-0.48	9.7	3.0	16	AL	
QN8WQG_AL	114.6	116.4	114.1	112.3	114.3	-0.13	8.5	1.7	115.0	0.04	8.5	3.0	16	AL	
R8EV6A	117.8 L	118.3 L	118.6 L	117.7 L	118.1	0.72	1.4	0.4 L	112.1	-0.67	2.1	6.6	16	LA	
TCRVYF	114.9	109.8	110.7	111.0	111.6	-0.75	5.4	2.3	112.1	-0.67	5.3	2.8	8	XX	
TLYMCG	115.0	111.6	115.0	114.4	114.0	-0.20	7.6	1.6	112.1	-0.66	7.8	2.8	16	AH	
TVMGND	114.6	112.2	117.1	112.9	114.2	-0.16	7.3	2.2	113.1	-0.42	8.0	3.3	16	LA	
TYFPND	113.4 H	120.5	114.9	117.2	116.5	0.35	10.4	3.1	117.6	0.68	8.5	3.1	16	LA	
UGZFMD	122.5	117.7	123.8	117.8	120.5	1.25	9.1	3.2	118.9	0.99	8.6	4.5	16	LC	
V3F9AC	114.2	115.0	116.7	109.3	113.8	-0.25	8.5	3.2	116.0	0.30	9.3	3.6	16	TB	
V7FJ7C_AL	114.5	116.9	116.2	116.4	116.0	0.25	7.6	1.0	117.3	0.61	8.3	2.1	14	XX	
VAAKYE_AL	111.8	110.1	108.8	114.4	111.3	-0.81	9.0	2.4	112.4	-0.60	8.1	2.5	16	AL	
VAEV2C_AL	109.3	114.6	111.4 H	109.6	111.2	-0.83	9.3	2.4	114.7	-0.04	9.4	3.0	16	AL	
VZ9ZY8	114.4	113.2	115.2	113.3	114.0	-0.20	6.0	1.0	114.7	-0.03	6.3	1.3	16	LJ	
W83F8B	123.0	113.3	119.9	119.5	118.9	0.90	7.8	4.1	116.6	0.42	9.5	3.5	16	LA	
W9H2GD	121.0	116.5	116.6	119.6	118.4	0.79	7.4	2.3	115.3	0.12	10.7	3.7	16	LC	
YPW2G8	109.6 L	108.2 L	107.3 L	107.7 L	108.2	-1.51	2.8	1.0	112.1	-0.66	2.8	8.0 H	16	AH	
YWTY4A_AL	119.8	119.2	122.5	118.2	119.9	1.13	7.8	1.8	120.0	1.26	8.7	3.0	16	AL	
Z2HV77_AL	112.6	117.9	113.2	110.8	113.6	-0.29	9.5	3.1	116.3	0.36	8.8	3.8	16	AL	
Consensus (All Labs) Results															
Wk Mean	115.44	115.02	114.95	114.53	Month Mean			114.91	Grand Mean			114.83			
Avg SDr	7.96	8.94	7.53	7.13	Avg SD			8.18	Avg SD			7.94			
SD btwn Labs	5.07	5.58	5.02	4.53	SD btwn Labs			4.45	SD btwn Labs			4.12			
Labs Incld	53	54	52	49	SD btwn Wks			2.69	SD btwn Wks			3.35			
Labs Excld	3	2	4	5	Labs Incld			52	Labs Incld			53			
Labs not Rcvd	0	0	0	2											



## Containerboard Interlaboratory Testing Program

Analysis 205

### Bursting Strength (Mullen), 42 lb Linerboard - 42L2

TAPPI Official Test Method T807

Report #665

February 2025

#### Key to Instrument Codes Reported by Participants

AH	Perkins Model AH	AK	L & W Autoline 300
AL	L & W Autoline 400	AX	Perkins Mullen Tester (model not specified)
LA	L&W Bursting Strength Tester	LB	L&W Burst-O-Matic
LC	L&W Autoline (205 Enrollment)	LJ	L&W Bursting Strength Tester J-Type
LZ	L&W (model not specified)	ME	Messmer Automatic Burst Tester ME-06
TB	TMI Monitor/Burst 1000	TP	Technidyne PROFILE/Plus
XX	Instrument make/model not specified by lab		



## Containerboard Interlaboratory Testing Program

Analysis 207

Report #665

February 2025

## Bursting Strength (Mullen), 31 lb Linerboard - 31K1

TAPPI Official Test Method T807

WebCode	Weekly Means				Monthly Results					Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst	
2DDA63	73.5	74.0	77.0	69.0	73.4	-0.56	5.6	3.3	75.1	0.00	6.6	2.8	12	XX	
2P7QU4	76.9	76.9	72.6	78.3	76.2	0.28	7.5	2.5	76.2	0.40	7.4	2.3	8	XX	
2RTHP8	69.0 *	72.4	68.8	69.4	69.9	-1.60	6.5	1.7	69.6	-1.97 *	5.9	1.6	5	AX	
2RTHP8_AL	74.4	74.7	72.2	71.1	73.1	-0.64	4.1	1.7	72.6	-0.90	4.3	1.8	6	AL	
2T4CL8	71.7	71.9	70.9	72.1	71.7	-1.07	4.8	0.5	71.7	-1.22	4.8	1.5	12	XX	
3ELUD4	79.7	84.8 *	86.0 *	84.4 *	83.7	2.55 *	4.8	2.8	80.2	1.83	5.3	6.2 H	12	ME	
3QFB36_AL	78.7 L	80.0	76.7 L	80.3	78.9	1.11	4.3	1.7	79.5	1.59	6.7	2.1	10	XX	
3W24D4_AL	73.3	75.5	77.3 L	76.4	75.6	0.12	4.2	1.7	78.2	1.12	5.4	3.3	12	AL	
4DQH83	78.6	82.5	79.9	83.6 *	81.2	1.77	5.9	2.3	79.6	1.62	6.5	3.2	12	AX	
637LP2	77.6	81.9	80.0	85.0 *	81.1	1.77	5.5	3.1	79.8	1.71	6.3	2.8	12	AH	
69PT4Z	72.1	72.2	71.6	71.5	71.8	-1.01	3.9	0.3 L	72.3	-1.01	4.3	1.1	12	XX	
6FQ8N2	71.3	66.9 *	66.1 *	65.9 *H	67.5	-2.30 *	8.4	2.5	69.5	-1.99 *	6.8	2.2	12	LA	
772U93_AL	71.7	73.1	71.8	71.6	72.1	-0.95	4.5	0.7	71.9	-1.16	5.1	1.5	12	XX	
7M6GP4_AL	70.7	68.6	72.6	67.7	69.9	-1.61	4.4	2.2	71.5	-1.28	7.3	3.8	12	AL	
8T69HX	77.1	76.0	79.5	76.5	77.3	0.61	4.0	1.5	78.1	1.07	4.4	2.4	12	LA	
9E6NFZ_AL	78.3	76.8	75.8	77.1	77.0	0.53	3.2	1.1	76.2	0.41	4.4	1.8	12	AL	
9XDZ2V	80.4	80.3	81.6	79.7	80.5	1.58	5.1	0.8	80.8	2.04 *	5.3	1.4	8	XX	
A2QX8W	73.4	72.7	74.0	79.5	74.9	-0.10	5.8	3.1	74.9	-0.06	5.4	2.6	12	LC	
A2QX8W_AL	82.5 *	76.0	74.3	73.2	76.5	0.38	5.1	4.2	73.1	-0.72	5.1	4.7	12	AK	
BK6PUY	78.9	76.5	75.7	77.3	77.1	0.57	6.5	1.4	76.0	0.34	6.1	1.4	12	LC	
BQ72PW	74.5	73.9	78.4 L	77.7	76.1	0.27	3.0	2.2	74.4	-0.26	4.7	2.6	12	LC	
C8RWVR_AL	77.7	76.2	72.7	75.9	75.6	0.11	5.5	2.1	75.8	0.26	6.8	2.2	12	AL	
CYGUAQ	77.7	73.0 H	74.5	73.3	74.6	-0.19	7.4	2.1	75.5	0.14	6.3	2.2	12	AH	
EMZHFT	71.7	75.0	75.2	75.3	74.3	-0.28	5.5	1.7	73.5	-0.56	5.4	1.8	12	LA	
F6R8NR	72.9	73.7	68.7	No Data	71.8	-1.04	5.8	2.7	71.8	-1.17	5.9	1.9	5	LJ	
F6R8NR_AL	74.4	72.1	69.4	No Data	72.0	-0.98	6.4	2.5	72.1	-1.07	5.9	2.1	5	AL	
FBFRUT_AL	71.6	69.0 H	No Data	76.5	72.3	-0.87	10.1	3.8	75.1	0.00	8.0	3.1	9	AL	
FLY68Q	78.6	79.5	77.3	77.6	78.3	0.91	5.3	1.0	77.0	0.69	5.4	1.4	12	LA	
FLY68Q_AL	77.1	78.3	76.2	75.9	76.9	0.49	4.8	1.1	76.3	0.45	4.7	2.3	12	AL	
GQQVTT	68.7 *H	67.6 *	63.8 *	71.9	68.0	-2.17 *	8.0	3.3	70.7	-1.59	6.5	2.8	12	LA	
JF2QQL	75.5	75.4	76.5	74.5	75.5	0.07	4.2	0.8	75.5	0.15	4.4	0.9	12	TP	
JQ3ABM	79.8	79.0	78.6 H	80.2	79.4	1.25	6.9	0.7	76.7	0.58	5.3	3.0	8	LB	
LV67PJ	76.8	75.5	76.9	76.4	76.4	0.35	3.8	0.6	75.4	0.10	3.6	1.6	12	AH	
MLFTAK	79.6	81.0	79.0	78.8	79.6	1.31	5.3	1.0	79.1	1.46	5.5	1.2	6	AH	
P9YRHJ_AL	73.1	71.1	70.0	67.9	70.5	-1.41	4.8	2.2	72.0	-1.11	4.9	2.0	12	AL	



## Containerboard Interlaboratory Testing Program

Analysis 207

Report #665

February 2025

## Bursting Strength (Mullen), 31 lb Linerboard - 31K1

TAPPI Official Test Method T807

WebCode	Weekly Means				Monthly Results				Cumulative Results										
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst					
PHMKTF	74.6	82.9	*	78.4	76.2	78.0	0.84	6.1	3.6	77.2	0.74	6.7	3.0	12	LC				
PHMKTF_AL	74.6	79.8	77.5	75.7	76.9	0.50	6.2	2.3	77.0	0.68	5.9	1.8	12	XX					
PYTT9G	74.6	75.6	75.3	L	74.8	75.1	-0.05	3.0	0.5	75.3	0.08	3.3	0.6	L	12	LA			
Q6TQWC_AL	75.6	74.0	78.1	78.1	76.4	0.36	6.0	2.0	75.0	-0.04	6.0	2.0	12	AL					
QN8WQG_AI	77.2	76.3	70.3	71.5	73.8	-0.42	5.5	3.4	74.5	-0.21	6.1	2.9	12	AL					
R8EV6A	74.7	L	75.0	L	75.4	L	74.5	L	74.9	-0.10	1.5	0.4	73.0	-0.75	3.6	9.9	H	12	LA
TCRVYF	78.5	76.7	75.2	77.6	77.0	0.53	3.7	1.4	77.0	0.68	3.7	1.4	4	XX					
TLYMCG	74.0	72.4	71.0	77.2	73.7	-0.47	6.2	2.7	73.9	-0.42	5.3	2.0	12	AH					
TVMGND	74.5	74.7	71.6	69.6	72.6	-0.79	5.0	2.5	73.2	-0.69	5.3	2.0	12	LA					
TYFPND	77.8	77.8	79.0	75.3	77.5	0.67	5.6	1.5	77.2	0.76	6.7	1.6	12	LA					
UGZFMD	80.3	81.5	80.7	79.9	80.6	1.61	5.5	0.7	77.2	0.75	5.6	2.9	12	LC					
V3F9AC	79.2	73.4	77.5	75.6	76.4	0.35	6.2	2.5	79.8	1.68	6.3	8.6	H	12	TB				
V7FJ7C_AL	74.8	73.5	77.9	76.4	75.6	0.13	4.4	1.9	75.1	0.02	5.5	1.6	12	XX					
VAAKYE_AL	72.0	71.1	73.6	73.1	72.4	-0.84	6.1	1.1	72.3	-1.01	6.4	1.5	12	AL					
VAEV2C_AL	73.3	73.5	75.3	72.6	73.7	-0.47	4.5	1.1	74.5	-0.23	5.7	1.7	12	AL					
VZ9ZY8	75.4	75.8	72.1	73.5	74.2	-0.31	4.0	1.8	73.7	-0.51	4.3	1.4	12	LJ					
W83F8B	74.7	75.5	71.7	75.6	74.4	-0.26	5.6	1.8	74.1	-0.36	5.8	1.8	12	LA					
YPW2G8	92.2	X	94.9	X	93.2	X	93.0	X	93.3	5.42	X	3.3	1.1	AH					
YWTY4A_AL	71.4	75.3	77.7	76.2	75.2	-0.02	6.1	2.7	75.8	0.27	6.4	2.2	12	AL					
Z2HV77_AL	74.7	74.6	71.5	H	73.0	73.4	-0.54	7.3	1.5	71.5	-1.30	10.0	2.6	12	AL				

Consensus (All Labs) Results														
Wk Mean		75.39	75.43	74.93	75.34	Month Mean		75.23	Grand Mean		75.08			
Avg SDr		5.26	5.71	5.76	5.34	Avg SD		5.56	Avg SD		5.78			
SD btwn Labs		3.14	3.83	4.13	4.06	SD btwn Labs		3.34	SD btwn Labs		2.78			
Labs Incld		54	54	53	52	SD btwn Wks		2.12	SD btwn Wks		2.95			
Labs Excld		1	1	1	1	Labs Incld		54	Labs Incld		54			
Labs not Rcvd		0	0	1	2									



## Containerboard Interlaboratory Testing Program

Analysis 207

### Bursting Strength (Mullen), 31 lb Linerboard - 31K1

TAPPI Official Test Method T807

Report #665

February 2025

#### Key to Instrument Codes Reported by Participants

AH	Perkins Model AH	AK	L & W Autoline 300
AL	L & W Autoline 400	AX	Perkins Mullen Tester (model not specified)
LA	L&W Bursting Strength Tester	LB	L&W Burst-O-Matic
LC	L&W Autoline (207 Enrollment)	LJ	L&W Bursting Strength Tester J-Type
ME	Messmer Automatic Burst Tester ME-06	TB	TMI Monitor/Burst 1000
TP	Technidyne PROFILE/Plus	XX	Instrument make/model not specified by lab



Containerboard Interlaboratory Testing Program  
Analysis 215  
**Ring Crush, 42 lb Linerboard - 42L2**  
TAPPI Official Test Method T822

Report #665  
February 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
3ELUD4	100.6	102.0	106.2	* 91.4 H	100.1	0.91	6.1	6.2 H	99.6	1.28	5.3	5.5	16	LX
3QFB36	105.0 *	100.4	105.2	106.1 *	104.2	1.99 *	2.9	2.6	97.0	0.48	4.5	11.8 H	15	LZ
4DQH83	82.8 XH	80.5 XH	80.7 XH	83.8 *	81.9	-3.79 X	5.4	1.6	82.5	-3.94 X	4.8	2.2	16	LD
637LP2	95.5	96.3	95.7	96.0	95.9	-0.17	2.1	0.3 L	95.2	-0.08	2.6	0.9	16	LD
69PT4Z	100.9	101.0	99.6	100.7	100.6	1.04	3.8	0.6	100.3	1.47	3.6	0.8 L	8	XX
772U93	96.4	96.6	95.9	94.1	95.7	-0.20	2.1	1.1	95.5	0.02	2.4	1.0	16	LD
8T69HX	95.1	95.1	99.4	95.3	96.2	-0.08	3.0	2.1	98.3	0.86	3.4	3.0	16	LC
9UDP7V	91.1	90.1	89.6	89.9	90.2	-1.65	3.7	0.7	90.0	-1.65	3.3	2.9	16	EM
9XDZ2V	95.2	94.6	98.1	102.3	97.6	0.27	3.2	3.5	99.2	1.15	3.6	2.8	12	LD
A27GRU	66.7 XH	66.8 XH	66.2 XH	66.4 XH	66.5	-7.80 X	11.1	0.3 L	66.7	-8.76 X	10.4	0.5 L	16	LD
BK6PUY	97.4	96.2 L	96.8	96.4	96.7	0.05	2.7	0.5	98.6	0.97	2.6	3.0	16	LD
BQ72PW	89.2 H	95.3	90.7	91.2	91.6	-1.28	4.1	2.6	92.0	-1.05	3.8	1.9	16	LD
CE8WQU	92.6	95.4	93.4	93.5	93.7	-0.73	2.7	1.2	95.8	0.10	2.7	4.8	16	XX
CYGUAQ	96.7	96.4	97.4	97.6	97.0	0.13	2.6	0.6	97.2	0.53	2.3	1.3	16	LC
DE7CMR	99.2	101.3 L	103.5	97.6	100.4	1.01	2.7	2.5	100.1	1.42	2.9	2.0	16	TU
EMZHFT	95.5	95.1	95.5	95.5	95.4	-0.29	2.6	0.2 L	95.3	-0.04	2.6	0.9	16	LD
EUXGJN	102.6	100.4	99.1	99.1	100.3	0.98	2.4	1.6	97.4	0.60	2.2	2.5	16	TH
FBFRUT	95.4	95.7	97.6	96.0	96.2	-0.09	3.3	1.0	96.5	0.32	3.2	1.1	16	LC
FLY68Q	96.0	94.4 H	100.7	100.5	97.9	0.36	3.9	3.2	95.9	0.14	3.3	2.4	12	LD
GQQVTT	86.2 *	85.9 *	86.1 *	86.6 *	86.2	-2.68 *	3.5	0.3 L	87.5	-2.43 *	3.5	2.2	15	LD
JF2QQL	100.1	99.9	91.8	91.9	95.9	-0.16	2.5	4.7 H	94.7	-0.22	2.8	2.4	16	TX
JQ3ABM	101.1	101.2	102.3	103.7	102.1	1.44	2.8	1.2	97.3	0.57	3.3	3.9	16	LD
L4GZ4L	91.5	90.8	90.5 H	88.7	90.3	-1.61	4.5	1.2	89.2	-1.89	3.5	2.5	16	EM
LLHYBN	100.6	97.9	97.0 L	100.5	99.0	0.65	2.5	1.8	99.1	1.11	2.3	2.5	16	LD
NBUT9G	93.1	94.7	93.8	94.4	94.0	-0.66	3.3	0.7	92.9	-0.78	2.9	2.0	16	LC
NHCE2K	93.0	93.0	95.0 L	94.2	93.8	-0.71	1.5	1.0	94.2	-0.39	1.7	1.0	16	LZ
PHMKTF	98.0	100.2	92.8	91.8	95.7	-0.22	3.7	4.0	90.3	-1.57	7.1	5.0	16	LD
Q6TQWC	94.3	96.6	98.9	96.0	96.4	-0.02	3.3	1.9	95.9	0.13	3.0	1.3	16	LD
QN8WQG	99.2	100.0	99.2	96.8	98.8	0.58	3.3	1.4	97.9	0.73	3.1	2.0	16	LD
R8EV6A	95.0 L	95.0 L	94.8 L	94.4 L	94.8	-0.45	0.7	0.3 L	92.7	-0.84	0.7	1.5	16	TU
REXXCC	100.4	101.5	99.4	102.9	101.0	1.17	4.1	1.5	99.1	1.11	3.4	2.5	16	MB
RV4DGD	96.9	93.2	94.7	95.2	95.0	-0.40	2.7	1.5	95.6	0.03	2.5	1.8	14	LG
TCRVYF	92.0	93.0 H	95.7	93.5	93.5	-0.78	4.6	1.6	91.3	-1.26	4.3	2.6	8	TU
TYFPND	93.8	94.9	93.6	93.8	94.0	-0.65	2.6	0.6	96.1	0.19	2.6	1.8	16	LD
UGZFM	100.2	102.4	103.5	101.2	101.8	1.38	3.2	1.4	99.1	1.12	2.8	2.2	16	MB



**Containerboard Interlaboratory Testing Program**  
**Analysis 215**  
**Ring Crush, 42 lb Linerboard - 42L2**  
**TAPPI Official Test Method T822**

**Report #665**  
**February 2025**

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
V3F9AC	92.7	93.9	97.2	96.9	95.2	-0.35	3.6	2.2	94.7	-0.21	4.8	3.2	14	LD
VAEV2C	98.1	97.3	99.0	98.2	98.2	0.43	2.3	0.7	96.3	0.25	2.6	2.0	16	LD
VZ9ZY8	96.7	93.4	95.8	97.0	95.7	-0.21	3.4	1.6	95.5	0.03	2.9	1.3	16	LD
XFUFY9	100.7	92.2	95.6	93.9	95.6	-0.25	2.5	3.7	93.0	-0.74	2.8	2.9	12	LD
Y7JDD9	90.7	90.7	89.6	91.2	90.5	-1.55	2.9	0.7	89.6	-1.80	2.6	2.4	16	LZ
YPW2G8	105.0 *	104.1 *	104.3	104.3	104.4	2.05 *	3.3	0.4	93.0	-0.74	2.3	8.0 H	16	LD
Z3EE88	100.5	98.6	97.6	100.8	99.4	0.74	2.9	1.5	99.1	1.11	2.5	1.4	16	LD

Consensus (All Labs) Results								
Wk Mean	96.60	96.42	96.81	95.98	Month Mean	96.53	Grand Mean	95.45
Avg SD <sub>r</sub>	3.25	3.10	3.18	3.31	Avg SD	3.21	Avg SD	3.27
SD btwn Labs	4.22	3.93	4.48	4.79	SD btwn Labs	3.85	SD btwn Labs	3.28
Labs Incl <sub>d</sub>	40	40	40	41	SD btwn Wks	2.12	SD btwn Wks	3.35
Labs Excl <sub>d</sub>	2	2	2	1	Labs Incl <sub>d</sub>	40	Labs Incl <sub>d</sub>	40
Labs not Rcvd	0	0	0	0				

### Key to Instrument Codes Reported by Participants

EM	Emerson 1200	LC	L&W Crush Tester 48
LD	L&W Crush Tester 248	LG	L&W 753
LX	L&W 506	LZ	L&W Crush Tester (model not specified)
MB	Messmer Buchel K440	TH	TMI Compression Tester, Model 17-76
TU	TMI Universal Crush Tester (TMI K440)	TX	TMI Digital Crush Tester (model not specified)
XX	Instrument make/model not specified by lab		



## Containerboard Interlaboratory Testing Program

Analysis 217

## Ring Crush, 31 lb Linerboard - 31K1

TAPPI Official Test Method T822

Report #665

February 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
3ELUD4	77.4	74.9	78.0	H 58.4 XH	72.2	-0.43	6.7	9.3 H	76.1	0.94	5.0	6.1 H	12	LX
3QFB36	79.8	80.2	79.6	80.0	79.9	2.00 *	2.4	0.3 L	76.9	1.22	3.2	7.1 H	11	LZ
4DQH83	61.8 X	58.2 X	59.0 X	64.9 *	61.0	-3.94 X	4.0	3.0	61.5	-4.22 X	5.0	3.8	12	LD
637LP2	73.5 L	73.5	71.4	72.6	72.8	-0.24	2.2	1.0	72.9	-0.19	2.4	1.0	12	LD
69PT4Z	80.1	76.8	78.5	78.5	78.5	1.55	3.1	1.3	78.5	1.79	3.1	1.3	4	XX
772U93	74.0	74.2	72.2 L	74.1	73.6	0.03	1.7	0.9	73.6	0.06	2.0	1.1	12	LD
8T69HX	72.0	73.5	73.9	74.9	73.6	0.01	3.2	1.2	74.5	0.39	3.5	2.5	12	LC
9UDP7V	65.7 *	65.6 *	69.0	65.8	66.5	-2.21 *	3.2	1.6	66.4	-2.51 *	3.1	2.3	12	EM
9XDZ2V	69.6	69.9 L	72.8	73.2	71.4	-0.68	2.6	1.9	71.9	-0.54	2.8	1.7	8	LD
A27GRU	51.5 XH	52.3 XH	53.2 XH	52.2 XH	52.3	-6.67 X	8.8	0.7	53.0	-7.27 X	8.3	2.1	12	LD
BK6PUY	75.2	76.4	75.4	75.2	75.6	0.64	2.5	0.6	76.0	0.92	2.9	2.5	12	LD
BQ72PW	67.3	75.4	70.5	69.3	70.6	-0.92	3.4	3.5	71.8	-0.60	3.7	2.6	12	LD
CE8WQU	72.7	71.5	74.0	73.8	73.0	-0.16	2.4	1.1	72.7	-0.28	2.4	1.2	12	LZ
CYGUAQ	74.3	73.1	75.3	72.6	73.8	0.08	2.5	1.2	74.2	0.26	2.6	0.9	12	LC
DE7CMR	78.8	79.8	81.2 *	78.2	79.5	1.87	3.0	1.3	79.1	2.00 *	3.3	2.0	12	TU
EMZHFT	73.6	74.2	73.5	74.0	73.8	0.08	2.0	0.3 L	73.3	-0.04	2.1	0.7 L	12	LD
EUXGJN	74.1	75.8	73.4	73.1	74.1	0.18	2.5	1.2	73.1	-0.11	2.7	1.2	12	TH
FBFRUT	70.2	74.1	72.2	73.3	72.5	-0.34	3.8	1.7	72.7	-0.25	3.5	1.2	12	LC
FLY68Q	72.4	78.1	77.8	76.2	76.1	0.82	3.2	2.6	74.9	0.51	2.9	2.1	12	LD
GQQVTT	65.4 *	67.2 *	65.2 *	64.9 *	65.7	-2.47 *	4.1	1.0	67.8	-2.01 *	3.8	1.9	12	LD
JF2QQL	73.1	76.6	70.0	68.5	72.1	-0.46	2.2	3.6	72.8	-0.23	2.4	2.7	12	TX
JQ3ABM	76.9	76.8	78.8	77.2	77.4	1.22	4.1	1.0	73.6	0.06	3.9	3.1	12	LC
L4GZ4L	68.9	68.6	67.8	65.8	67.8	-1.81	3.6	1.4	68.6	-1.71	3.4	1.7	12	EM
LLHYBN	77.5	77.2	78.1	80.6	78.3	1.51	2.6	1.6	77.5	1.45	2.4	2.0	12	LD
NBUT9G	72.6	72.7	72.7	71.3	72.3	-0.39	2.8	0.7	71.9	-0.54	3.2	0.9	12	LC
NHCE2K	70.7	70.9	72.2	69.3	70.8	-0.87	1.7	1.2	71.3	-0.77	1.6	0.9	12	LZ
PHMKTF	76.4	76.9	68.7	69.0	72.8	-0.25	3.3	4.5	70.7	-0.99	3.8	3.7	12	LD
Q6TQWC	70.3	73.0	73.2	74.6	72.8	-0.23	3.5	1.8	72.9	-0.20	3.5	1.4	12	LD
QN8WQG	74.1	75.4	69.5	74.2	73.3	-0.08	3.1	2.6	74.2	0.27	3.2	1.9	12	LD
R8EV6A	72.8 L	72.4 L	72.7 L	72.6 L	72.6	-0.28	0.6	0.2 L	72.0	-0.49	1.3	2.0	12	TU
REXXCC	77.7	76.6	74.3	77.5	76.5	0.94	3.5	1.6	75.2	0.63	3.6	1.9	12	MB
RV4DGD	73.0	73.1	74.5	72.8	73.3	-0.06	3.2	0.8	73.7	0.10	2.7	1.1	10	LG
TCRVYF	71.4	70.9	73.6	68.6	71.1	-0.76	3.3	2.1	71.1	-0.82	3.3	2.1	4	TU
TYFPND	69.6	72.0	71.3	71.1	71.0	-0.80	2.4	1.0	72.4	-0.35	2.2	2.2	12	LD
UGZFMD	76.6	77.3 H	79.5	77.6	77.7	1.32	3.8	1.2	77.0	1.25	3.0	1.3	12	MB



# Containerboard Interlaboratory Testing Program

Analysis 217

## Ring Crush, 31 lb Linerboard - 31K1

TAPPI Official Test Method T822

**Report #665**

**February 2025**

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
V3F9AC	70.8	74.5	74.7	73.0	73.2	-0.09	3.1	1.8	71.6	-0.66	3.3	3.4	12	LC
VAEV2C	75.7	75.6	74.7	73.4	74.9	0.42	2.4	1.1	74.2	0.29	2.4	1.2	12	LD
VZ9ZY8	75.5	75.6	75.9	75.8	75.7	0.68	3.0	0.2 L	73.7	0.10	2.9	2.1	12	LD
XFUFY9	78.9	69.8	72.3	72.9	73.5	-0.01	2.6	3.9	71.6	-0.64	2.7	3.2	12	LD
Y7JDD9	70.2	72.2	71.3	70.7	71.1	-0.76	3.3	0.9	70.1	-1.18	2.8	1.4	12	LZ
YPW2G8	92.5 X	92.2 X	92.3 XH	92.6 X	92.4	5.93 X	3.3	0.2 L	78.8	1.90	2.9	10.1 H	12	LD
Z3EE88	76.1	76.7	77.0	76.1	76.5	0.93	2.6	0.5	76.2	0.97	2.4	0.7 L	12	LD
Consensus (All Labs) Results														
Wk Mean	73.46	74.08	73.76	73.00	Month Mean			73.53	Grand Mean			73.44		
Avg SD <sub>r</sub>	3.06	2.97	2.91	3.00	Avg SD			3.10	Avg SD			3.02		
SD btwn Labs	3.68	3.22	3.55	3.96	SD btwn Labs			3.18	SD btwn Labs			2.82		
Labs Incl <sub>d</sub>	39	39	39	39	SD btwn Wks			2.31	SD btwn Wks			2.88		
Labs Excl <sub>d</sub>	3	3	3	3	Labs Incl <sub>d</sub>			39	Labs Incl <sub>d</sub>			40		
Labs not Rcvd	0	0	0	0										

### Key to Instrument Codes Reported by Participants

EM	Emerson 1200	LC	L&W Crush Tester 48
LD	L&W Crush Tester 248	LG	L&W 753
LX	L&W 506	LZ	L&W Crush Tester (model not specified)
MB	Messmer Buchel K440	TH	TMI Compression Tester, Model 17-76
TU	TMI Universal Crush Tester (TMI K440)	TX	TMI Digital Crush Tester (model not specified)
XX	Instrument make/model not specified by lab		



## Containerboard Interlaboratory Testing Program

Analysis 223

STFI, 42 Ib Linerboard - 42L2

TAPPI Official Test Method T826

Report #665

February 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
23Y3D9	25.0	26.1	25.6	24.7	25.3	0.29	1.5	0.6	25.7	0.87	1.5	0.6	16	LZ
26ZFQZ	25.0	25.5	24.6	24.9	25.0	-0.02	1.1	0.4	25.5	0.66	1.5	0.5	16	XX
2P7QU4	24.8	24.7	25.7	25.2	25.1	0.07	1.9	0.5	23.2	-1.91	1.6	2.2	12	XX
2RTHP8	25.0	24.7	24.3	25.4	24.9	-0.15	1.6	0.5	24.6	-0.29	1.5	0.5	6	LU
2RTHP8_AL	25.6	24.7	23.8	25.7	25.0	-0.06	1.5	0.9	25.0	0.09	1.5	0.7	6	AL
2T4CL8	25.7	27.6 *	28.0 *	26.7	27.0	1.78	1.6	1.0	26.0	1.30	1.4	1.0	16	LH
3ELUD4	20.0	XH	25.3	23.1	23.5	-1.36	1.9	2.6 H	24.3	-0.69	1.9	2.6 H	16	LZ
3QFB36_AL	23.9	23.4	24.2	24.5 H	24.0	-0.94	2.0	0.4	30.9	6.81 X	2.0	7.7 H	15	AL
3W24D4_AL	23.3	24.1	23.8	22.9	23.5	-1.34	1.4	0.5	24.1	-0.88	1.4	0.7	16	AL
4DQH83	26.7 L	25.5 L	25.9 L	27.0 L	26.3	1.12	0.0	0.7	25.4	0.63	0.0	0.6	16	LH
637LP2	24.9	24.8	25.6	25.1	25.1	0.08	1.5	0.3	24.6	-0.35	1.6	0.4	16	LU
6738G6	26.4	25.6 H	26.8	25.4	26.1	0.93	2.0	0.7	25.2	0.37	1.9	0.7	16	LH
6FQ8N2	24.9	25.8	25.8	25.2	25.4	0.37	1.5	0.4	25.5	0.65	1.7	0.5	16	LH
74P6YX	24.4 L	24.0 L	24.0 L	22.4 *	23.7	-1.19	0.7	0.9	23.6	-1.49	0.9	0.7	8	TT
772U93_AL	24.7	21.7 X	24.3	26.0	24.2	-0.78	1.8	1.8 H	24.4	-0.58	1.5	1.0	16	XX
77XGGZ	27.4	25.9	26.0	26.3 L	26.4	1.23	1.5	0.7	25.4	0.63	1.5	0.9	16	LA
7M6GP4_AL	29.0 XL	28.0 *L	27.5 *L	27.0 L	27.9	2.57 *	0.0	0.9	27.3	2.72 *	0.0	1.2	16	AL
8T69HX	24.6	25.0	25.0	25.9	25.1	0.09	1.5	0.6	24.9	-0.02	1.5	0.6	16	LA
9E6NFZ	24.4	23.8	25.5 L	25.3	24.7	-0.26	1.0	0.8	24.1	-0.87	1.3	0.7	15	LU
A27GRU	22.9	23.1	23.0	23.4	23.1	-1.73	1.3	0.2	23.8	-1.17	1.5	0.8	16	LY
A27GRU_AL	23.8	22.9	23.4	23.2	23.3	-1.52	1.8	0.4	23.8	-1.19	1.8	0.8	16	AL
A2QX8W_AL	28.2 *H	25.2	25.0	24.7	25.8	0.68	2.0	1.6 H	24.7	-0.24	1.6	1.4	12	AK
ARMXHV	24.5	24.9	24.4	24.4	24.6	-0.42	1.4	0.2	24.4	-0.59	1.4	0.6	16	LH
BK6PUY	24.8	24.4	25.6	24.4	24.8	-0.22	1.5	0.6	24.8	-0.12	1.5	0.4	16	LA
BQ72PW	27.0	25.4	27.9 *	28.6 XH	27.2	1.99 *	1.9	1.4	25.8	1.01	1.7	1.3	16	LA
C8RWVR_AL	25.0	25.3	26.3	25.9	25.6	0.53	1.7	0.6	25.1	0.26	1.6	0.8	16	AL
CE8WQU	23.8	24.4	24.0	25.1	24.3	-0.61	1.5	0.6	24.1	-0.82	1.4	0.5	16	LZ
CYGUAAQ	24.6	24.1	24.9	24.8	24.6	-0.39	1.6	0.4	24.6	-0.36	1.5	0.4	16	LU
DE7CMR	26.2	26.9	25.0	26.2	26.1	0.95	1.5	0.8	25.6	0.84	1.6	0.8	16	LA
EMZHFT	24.4	24.1	24.2	24.0	24.2	-0.78	1.4	0.2	24.6	-0.31	1.5	0.5	16	LA
F6R8NR	22.9	24.8	24.9	No DATA	24.2	-0.74	1.5	1.1	24.6	-0.36	1.5	1.1	6	LH
F6R8NR_AL	22.7	24.0	23.8	No DATA	23.5	-1.37	1.2	0.7	23.5	-1.55	1.4	0.9	6	AL
FBFRUT	25.2	24.2	23.6	24.0	24.3	-0.70	1.7	0.7	23.9	-1.14	1.4	0.8	16	LU
FLY68Q_AL	25.7	25.1	25.5	24.4	25.1	0.11	1.6	0.6	24.8	-0.05	1.6	0.8	12	AL
GQQVTT	24.5	24.7	24.3 H	24.4	24.5	-0.52	3.0	0.2	24.8	-0.05	2.0	0.9	16	LY



## Containerboard Interlaboratory Testing Program

Analysis 223

STFI, 42 Ib Linerboard - 42L2

TAPPI Official Test Method T826

Report #665

February 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
H9J3FQ	25.8	26.1	25.9	25.5	25.8	0.74	1.3	0.2	25.7	0.88	1.3	0.4	12	LH
HRWKMP	25.9	26.3	25.6	25.9	25.9	0.83	1.7	0.3	25.5	0.69	1.7	0.7	12	LH
JQ3ABM	25.7	26.4	26.5	25.8 H	26.1	0.97	2.0	0.4	25.7	0.90	1.6	0.4	16	LU
L324CL	25.4	25.4	24.8	25.1	25.2	0.13	1.5	0.3	24.9	0.04	1.4	0.6	12	LU
LLHYBN	27.4	27.5 *	27.0	26.3	27.0	1.81	1.7	0.6	26.8	2.12 * 1.6	0.5	16	LH	
MLFTAK	25.6	24.9	24.8 L	26.8	25.5	0.44	1.4	0.9	25.6	0.85	1.5	0.7	6	LU
MR2TGK	23.8	23.4	22.5 *	22.5 *	23.1	-1.76	1.5	0.6	23.2	-1.92	1.5	0.6	8	LZ
NHCE2K	12.1 XL	12.1 XL	12.1 XL	11.9 XL	12.1	-11.69 X	0.6	0.1 L	12.1	-14.32 X 0.6	0.1 L	16	XX	
P9YRHJ_AL	25.1	25.6	26.1	26.2 L	25.8	0.66	1.3	0.5	25.9	1.12	1.4	1.1	16	AL
PHMKTF	24.6	25.4	24.2	23.4	24.4	-0.56	1.5	0.8	23.8	-1.24	1.4	1.3	16	LZ
PHMKTF_AL	43.3 XL	44.3 XL	32.6 XL	40.3 XL	40.1	13.62 X	0.0	5.3 H	40.4	17.40 X 0.0	2.8 H	16	AL	
PYTT9G	24.7	25.2	25.0	24.9	24.9	-0.07	2.1	0.2	24.9	0.06	2.0	0.3 L	16	LZ
Q6TQWC_AL	21.9 *	22.6 *	21.1 X	22.6 *	22.1	-2.68 *	1.6	0.7	23.0	-2.15 * 1.7	1.1	16	AL	
QN8WQG_AI	25.1	25.4 H	25.0	24.9	25.1	0.08	1.8	0.2	24.8	-0.14	1.7	0.5	16	AL
R8EV6A	35.5 X	35.2 X	35.9 X	36.1 X	35.7	9.61 X	1.7	0.4	26.0	1.27	1.6	6.0 H	16	ID
REXXCC	24.9	24.1	24.4	24.8	24.6	-0.42	1.7	0.4	24.0	-1.02	1.5	0.7	16	LA
RV4DGD	26.0	24.3	25.8	23.7	24.9	-0.08	1.5	1.1	25.3	0.49	1.7	0.8	14	BK
TCRVYF	25.4	24.1	25.0	24.7	24.8	-0.19	1.6	0.6	25.0	0.11	1.5	0.5	8	TT
TYFPND	24.0	24.5	24.4	24.0	24.2	-0.73	1.5	0.3	24.4	-0.51	1.5	0.6	16	LY
UGZFMD	26.8	25.1	26.4 H	26.3	26.2	1.02	2.0	0.8	25.1	0.29	1.7	0.9	16	LA
V3F9AC	25.7	25.5	24.7	25.1	25.2	0.19	1.9	0.5	25.8	1.05	2.2	1.7	16	LW
V7FJ7C_AL	25.8	26.6	24.4	26.0	25.7	0.59	1.4	0.9	25.9	1.11	1.4	0.8	14	XX
VAAKYE_AL	29.9 X	30.5 X	29.7 X	30.5 XH	30.2	4.63 X	1.9	0.4	29.9	5.69 X 1.8	0.7	16	AL	
VAEV2C_AL	26.0	25.8 L	24.9 L	25.0 L	25.4	0.38	1.4	0.6	25.4	0.58	1.2	0.7	16	AL
VNVT7D	24.8	24.4	24.7	24.7	24.6	-0.34	1.5	0.2	25.0	0.17	1.6	0.7	16	LW
W83F8B	26.4	25.5	25.9	25.8	25.9	0.79	1.4	0.4	25.8	1.05	1.5	0.7	16	LY
W9H2GD	28.3 *	26.7	27.5 *	24.7	26.8	1.60	1.4	1.5	24.8	-0.08	1.4	1.5	16	LA
XBEREC	23.8 H	24.2 H	24.7	23.8	24.2	-0.79	2.4	0.4	24.6	-0.27	2.4	0.6	16	LH
Y7JDD9	23.8	24.0	23.9	24.2	24.0	-0.96	1.6	0.2	23.6	-1.49	1.6	0.5	16	LZ
YPW2G8	48.5 XH	47.2 XH	48.2 XH	46.4 XH	47.6	20.36 X	6.8	1.0	36.6	13.17 X 4.5	7.5 H	16	XX	
YWTY4A_AL	26.3	27.1	26.4	25.1	26.2	1.08	1.6	0.9	26.4	1.72	1.6	0.8	16	AL
Z2HV77_AL	24.6	25.1	24.2	24.3	24.6	-0.43	1.4	0.4	24.3	-0.67	1.5	0.5	16	AL



## Containerboard Interlaboratory Testing Program

Analysis 223

**STFI, 42 Ib Linerboard - 42L2**

TAPPI Official Test Method T826

Report #665

February 2025

Consensus (All Labs) Results							
Wk Mean	25.11	25.07	25.08	24.95	Month Mean	25.02	Grand Mean
Avg SDr	1.61	1.55	1.76	1.58	Avg SD	1.64	Avg SD
SD btwn Labs	1.26	1.13	1.19	1.09	SD btwn Labs	1.11	SD btwn Labs
Labs Incld	60	61	61	59	SD btwn Wks	0.78	SD btwn Wks
Labs Excld	7	6	6	6	Labs Incld	62	Labs Incld
Labs not Rcvd	0	0	0	2			62

## Key to Instrument Codes Reported by Participants

AK	L & W Autoline 300	AL	L & W Autoline 400
BK	Buchel Strip Compression Tester BK-155	ID	IDM Compression Tester
LA	L&W Autoline (223 Enrollment)	LH	L&W 282
LU	L&W 52 without moisture correction(was 53)	LW	L&W 53 with moisture correction (was 53M)
LY	L&W 152 without moisture correction	LZ	L&W (model not specified)
TT	TMI Short Span Compression, 17-34 (MB K455)	XX	Instrument make/model not specified by lab



## Containerboard Interlaboratory Testing Program

Analysis 225

STFI, 31 lb Linerboard - 31K1

TAPPI Official Test Method T826

Report #665

February 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results										
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst					
23Y3D9	20.9	20.4	21.1	20.8	20.8	0.17	1.3	0.3	21.2	0.79	1.5	1.0	12	XX					
26ZFQZ	19.9	20.4	L	20.6	19.9	-0.48	1.5	0.3	20.7	0.17	1.4	0.7	12	XX					
2P7QU4	21.0	20.9	20.8	20.6	20.8	0.21	1.7	0.2	L	-0.03	1.6	0.4	8	XX					
2RTHP8	20.4	20.5	20.6	21.4	20.7	0.10	1.4	0.4	20.7	0.17	1.4	0.4	6	LU					
2RTHP8_AL	21.4	20.9	19.1	21.5	20.7	0.10	1.5	1.1	21.2	0.83	1.5	1.1	6	AL					
2T4CL8	21.7	21.3	21.4	20.6	21.3	0.66	1.4	0.5	21.4	1.09	1.3	0.5	12	LH					
3ELUD4	16.4	X	22.2	26.9	X	21.7	H		21.8	1.25	2.0	4.3	H	12	LZ				
3QFB36_AL	19.8	20.1	19.8	20.2	20.0	-0.72	1.3	0.2	26.4	7.46	X	1.5	6.9	H	10	XX			
3W24D4_AL	20.5	19.5	19.7	19.7	19.9	-0.83	1.4	0.5	19.9	-0.87	1.3	0.6	12	XX					
4DQH83	22.0	L	20.6	L	21.5	L	21.8	L	21.5	0.90	0.0	0.6	22.4	2.37	* 0.0	4.1	H	12	LH
637LP2	20.4	20.1	20.8	20.0	20.3	-0.38	1.4	0.4	20.1	-0.57	1.4	0.3	L	12	LU				
6738G6	21.6	H	21.1	20.8	20.6	0.40	1.9	0.4	21.1	0.73	1.7	0.4	12	LH					
6FQ8N2	21.0	21.6	21.6	21.5	21.4	0.85	1.5	0.3	21.3	0.96	1.7	0.5	12	LH					
74P6YX	19.1	L	18.8	L	18.9	L	18.1	*L	18.7	-2.05	*	0.7	0.4		TT				
772U93_AL	20.4	21.7	19.4	21.5	20.7	0.11	1.5	1.1	20.1	-0.63	1.3	0.8	12	XX					
77XGGZ	21.2	21.5	20.4	21.0	21.0	0.44	1.2	0.5	21.0	0.58	1.3	0.5	12	LA					
7M6GP4_AL	127.9	XL	129.6	XL	130.8	XL	129.6	XL	129.5	116.77	X	0.0	1.2		AL				
8T69HX	20.2	19.9	20.8	21.4	20.6	-0.06	1.4	0.7	20.1	-0.56	1.5	0.7	12	LA					
9E6NFZ	20.0	19.9	21.6	21.6	H	0.13	1.7	0.9	20.5	-0.05	1.4	0.8	12	LU					
A27GRU	18.3	*	18.0	*	18.6	18.2	*		18.3	-2.54	*	1.4	0.2		LU				
A27GRU_AL	18.5	*	18.2	*	19.1	18.4	*H		18.5	-2.26	*	1.7	0.4		AL				
A2QX8W_AL	21.1	20.7	21.2	21.6	H	0.55	1.6	0.4	20.8	0.33	1.4	0.5	12	AK					
ARMXHV	20.2	L	20.2	19.5	26.7	XH			21.6	1.08	3.6	3.4	H		LH				
BK6PUY	20.2	20.7	19.8	20.6	20.3	-0.32	1.3	0.4	20.4	-0.20	1.4	0.4	12	LA					
BQ72PW	27.1	X	22.2	21.2	20.9	2.37	*	1.8	2.9	H					LA				
C8RWVR_AL	21.4	22.1	21.2	21.4	21.5	0.97	1.4	0.4	20.6	0.05	1.4	0.9	12	AL					
CE8WQU	19.6	20.2	21.0	20.1	20.2	-0.43	1.4	0.6	19.9	-0.80	1.4	0.6	12	XX					
CYGUAAQ	19.5	19.9	19.8	20.0	19.8	-0.90	1.3	0.2	19.8	-0.91	1.3	0.2	L	12	LU				
DE7CMR	22.6	*	22.1	22.5	23.1	*			22.6	2.08	*	1.6	0.4		LA				
EMZHFT	20.6	18.6	L	19.9	20.0	L			19.8	-0.93	0.8	0.8			LW				
F6R8NR	18.2	*H	21.1	21.1	No DATA				20.1	-0.54	2.2	1.7			LH				
F6R8NR_AL	19.4	22.1	20.2	No DATA					20.6	-0.07	1.2	1.4			AL				
FBFRUT	21.3	20.0	19.5	20.6					20.4	-0.30	1.3	0.7			LU				
FLY68Q_AL	20.7	21.5	21.1	20.6					21.0	0.38	1.3	0.4			AL				
GQQVTT	20.6	20.1	L	20.2	19.9				20.2	-0.48	1.3	0.3			LY				



## Containerboard Interlaboratory Testing Program

Analysis 225

STFI, 31 lb Linerboard - 31K1

TAPPI Official Test Method T826

Report #665

February 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
H9J3FQ	21.3	20.4	21.2	L 20.6	20.9	0.26	1.3	0.4	20.9	0.46	1.2	0.3	12	LH
HRWKMP	20.8	21.5	21.9	21.2	21.3	0.76	1.4	0.5	20.7	0.15	1.3	0.8	12	LH
JQ3ABM	21.7 H	22.6 H	22.3	22.2	22.2	1.66	2.1	0.4	21.7	1.47	1.9	0.6	8	LW
L324CL	20.5	20.7	20.4	20.5	20.5	-0.13	1.4	0.1 L	20.9	0.43	1.6	1.0	12	LU
LLHYBN	21.5	21.0	21.4	21.1	21.2	0.65	1.3	0.2	20.7	0.18	1.3	0.7	12	LH
MLFTAK	21.6	21.2	21.4	21.5	21.4	0.86	1.4	0.1 L	21.5	1.24	1.5	0.4	6	LU
MR2TGK	19.7	19.0	20.2	20.2	19.8	-0.90	1.5	0.6	19.8	-0.98	1.5	0.6	4	LZ
NHCE2K	9.8 XL	9.8 XL	9.8 XL	9.6 XL	9.8	-11.67 X	0.7	0.1 L	9.8	-13.77 X	0.6	0.1 L	12	XX
P9YRHJ_AL	20.8	21.7	22.3 L	22.3 L	21.8	1.21	0.9	0.7	21.2	0.87	1.3	0.8	12	AL
PHMKTF	20.5	21.0 L	18.7 L	18.8	19.7	-0.96	1.0	1.2	19.5	-1.38	1.3	0.8	12	LZ
PHMKTF_AL	34.8 XL	37.6 XL	35.7 XL	33.2 XL	35.3	15.72 X	0.0	1.8	34.4	17.85 X	0.0	1.3	12	AL
PYTT9G	20.5	21.1	20.9	20.7	20.8	0.19	1.7	0.3	20.3	-0.34	1.6	0.5	12	LA
Q6TQWC_AL	17.9 *	18.5	18.6	18.7	18.4	-2.37 *	1.6	0.4	18.5	-2.67 *	1.4	0.6	12	AL
QN8WQG_AI	21.5	20.4	20.6	21.6	21.0	0.43	1.6	0.6	20.6	0.05	1.5	0.7	12	AL
R8EV6A	29.2 X	29.5 X	29.8 X	29.7 X	29.6	9.57 X	1.9	0.3	21.8	1.55	1.4	5.8 H	12	ID
REXXCC	20.7	20.0	20.4	20.6	20.4	-0.20	1.6	0.3	20.2	-0.48	1.4	0.3	12	LA
RV4DGD	20.3	20.1	20.0	20.0	20.1	-0.58	1.3	0.1 L	20.8	0.34	1.3	1.2	10	LW
TCRVYF	20.3	20.4	23.5 *	19.6	21.0	0.34	1.5	1.7	21.0	0.51	1.5	1.7	4	TT
TYFPND	20.0	19.7	20.2	19.3	19.8	-0.92	1.4	0.4	19.9	-0.83	1.4	0.4	12	LY
UGZFMD	21.5	20.7	21.1	20.9	21.0	0.44	1.7	0.3	20.9	0.40	1.7	0.5	12	LA
V3F9AC	20.0	19.8	21.4	20.3	20.4	-0.27	1.6	0.7	21.0	0.57	1.9	1.0	12	LW
V7FJ7C_AL	21.3	20.5	21.2	20.6	20.9	0.29	1.5	0.4	21.4	1.03	1.7	0.6	12	XX
VAAKYE_AL	26.1 X	25.4 X	25.3 XH	25.9 X	25.7	5.39 X	1.9	0.4	25.0	5.68 X	1.6	0.8	12	AL
VAEV2C_AL	21.1	20.1 L	20.8	19.9 L	20.5	-0.14	1.0	0.6	20.9	0.42	1.1	0.6	12	AL
VNVT7D	20.2	20.1	20.3	20.0	20.1	-0.52	1.5	0.1 L	20.1	-0.55	1.4	0.4	12	LW
W83F8B	21.9	21.8	21.5	22.1	21.8	1.26	1.4	0.3	21.2	0.81	1.4	0.5	12	LU
W9H2GD	21.9	23.2 *	23.7 *	20.1 L	22.2	1.71	1.5	1.6	20.8	0.31	1.3	1.6	12	LA
XBEREC	19.8 L	19.7	20.0	19.4	19.7	-0.99	1.8	0.3	19.7	-1.12	1.7	0.4	12	LH
Y7JDD9	19.4	19.7	19.3	19.9	19.6	-1.13	1.2	0.3	19.4	-1.52	1.3	0.3 L	12	LZ
YPW2G8	28.7 XH	23.4 *H	22.7 H	25.6 XH	25.1	4.79 X	4.3	2.7 H	23.3	3.56 X	4.0	2.0	12	XX
YWTY4A_AL	23.4 *	23.7 *	23.6 *	23.0 *	23.4	3.00 X	1.6	0.3	22.1	1.96 *	1.5	1.1	12	AL
Z2HV77_AL	19.9	20.7	19.9	20.6	20.3	-0.38	1.2	0.4	19.9	-0.87	1.3	0.5	12	AL



## Containerboard Interlaboratory Testing Program

Analysis 225

**STFI, 31 lb Linerboard - 31K1**

TAPPI Official Test Method T826

Report #665

February 2025

**Consensus (All Labs) Results**

Wk Mean	20.57	20.67	20.72	20.60	Month Mean	20.63	Grand Mean	20.55
Avg SDr	1.49	1.49	1.52	1.47	Avg SD	1.53	Avg SD	1.46
SD btwn Labs	1.05	1.17	1.17	1.07	SD btwn Labs	0.93	SD btwn Labs	0.78
Labs Incld	59	62	61	58	SD btwn Wks	1.02	SD btwn Wks	1.26
Labs Excld	8	5	6	7	Labs Incld	60	Labs Incld	61
Labs not Rcvd	0	0	0	2				

**Key to Instrument Codes Reported by Participants**

AK	L & W Autoline 300	AL	L & W Autoline 400
ID	IDM Compression Tester	LA	L&W Autoline (223 Enrollment)
LH	L&W 282	LU	L&W 52 without moisture correction (was 53)
LW	L&W 53 with moisture correction (was 53M)	LY	L&W 152 (was 52M)
LZ	L&W (model not specified)	TT	TMI Short Span Compression, 17-34 (MB K455)
XX	Instrument make/model not specified by lab		



## Containerboard Interlaboratory Testing Program

Analysis 228

## Roughness - Stylus Method, 42 lb Linerboard - 42L2

TAPPI Official Test Method T575

Report #665

February 2025

WebCode	Monthly Results				Cumulative Results					
	Mean	CPV	SD		Mean	CPV	SD	Months	Months	Inst
2RTHP8_AL	156.0	-1.65	9.57	L	154.6	-1.75	1.98	2	2	AL
3QFB36_AL	146.4	-1.85	19.49		135.6	-2.15 *	8.04	4	4	AL
3W24D4_AL	207.9	-0.62	21.35		214.3	-0.47	24.69	4	4	AL
637LP2	290.4	1.03	22.16		294.1	1.24	4.41 L	4	4	EV
6738G6	231.6	-0.14	35.59		237.2	0.02	5.77	4	4	LS
6FQ8N2	267.1	0.57	19.79		267.3	0.67	6.02	4	4	EV
74P6YX	262.5	0.47	18.63		263.0	0.58	0.70	2	2	EV
77XGGZ	278.3	0.79	37.57		261.9	0.55	14.56	4	4	LA
9E6NFZ	171.6	-1.34	19.92		184.5	-1.11	11.71	4	4	EV
A27GRU	241.4	0.05	19.98		243.9	0.17	5.02 L	4	4	XX
A27GRU_AL	266.3	0.55	28.23		253.9	0.38	12.89	4	4	AL
BPVY4X	314.5	1.51	18.96		315.7	1.71	4.76 L	4	4	LS
BQ72PW	222.8	-0.32	25.23		226.1	-0.21	26.24	4	4	LA
C8RWVR_AL	258.5	0.39	20.68		255.0	0.41	6.88	4	4	AL
DE7CMR	275.4	0.73	38.50		291.6	1.19	19.10	4	4	LA
EMZHFT	283.1	0.88	33.18		265.9	0.64	14.76	4	4	LA
F6R8NR_AL	247.1	0.17	29.22		244.7	0.18	14.21	3	3	AL
FBFRUT	165.6	-1.46	19.72		201.7	-0.74	48.44	4	4	EV
GQQVTT	280.7	0.84	33.15		281.0	0.96	11.47	4	4	EV
P9YRHJ_AL	251.8	0.26	15.93		260.1	0.52	6.61	4	4	AL
PHMKTF	190.2	-0.97	23.72		185.9	-1.07	4.21 L	3	3	LA
PHMKTF_AL	174.0	-1.29	20.80		174.7	-1.32	8.59	4	4	AL
PYTT9G	234.2	-0.09	17.48		232.8	-0.07	2.72 L	4	4	LS
QN8WQG	226.8	-0.24	23.86		234.7	-0.03	11.42	4	4	LS
QN8WQG_AL	300.4	1.23	36.40		266.3	0.65	22.71	4	4	AL
REXXCC	291.4	1.05	62.49	H	291.0	1.18	0.73 L	4	4	LA
TYFPND	275.9	0.74	33.77		262.2	0.56	15.70	4	4	LS
UGZFM	284.5	0.91	32.63		288.4	1.12	3.10 L	4	4	LA
V3F9AC	267.7	0.58	32.46		235.2	-0.02	60.70	4	4	XX
V7FJ7C_AL	158.2	-1.61	19.49		153.8	-1.76	4.34 L	4	4	AL
VAAKYE_AL	161.9	-1.54	43.08		151.3	-1.82	11.22	4	4	AL
Y7JDD9	288.1	0.98	25.97		281.4	0.97	8.31	4	4	EV
YWTY4A_AL	276.4	0.75	15.12		209.5	-0.57	139.51 H	4	4	AL
Z2HV77_AL	170.7	-1.36	19.74		206.7	-0.63	50.00	4	4	AL



## Containerboard Interlaboratory Testing Program

Analysis 228

### Roughness - Stylus Method, 42 lb Linerboard - 42L2

TAPPI Official Test Method T575

Report #665

February 2025

#### Consensus (All Labs) Results

Month Mean	238.80	Grand Mean	236.05
Avg SD	28.14	Avg SD Months	30.79
SD btwn Labs	50.08	SD btwn Labs	46.66
Labs Incl'd	34	Labs Incl'd	34

#### Key to Instrument Codes Reported by Participants

AL	L & W Autoline 400	EV	Emveco Microgage Model 210-R
LA	L&W Autoline (228 Enrollment)	LS	L&W 263
XX	Instrument make/model not specified by lab		



## Containerboard Interlaboratory Testing Program

Analysis 229

## Roughness - Sheffield Method, 42 lb Linerboard - 42L2

TAPPI Official Test Method T538

Report #665  
February 2025

WebCode	Monthly Results			Cumulative Results					
	Mean	CPV	SD	Mean	CPV	SD	Months	Months	Inst
772U93_AL	380.1	-0.20	6.76	378.7	-0.32	1.64	4	XX	
9UDP7V	347.4	-2.01 *	3.83	350.5	-2.16 *	3.80	4	TS	
A27GRU_AL	392.1	0.47	2.85	395.9	0.80	3.28	4	AL	
A2QX8W_AL	405.0	1.19	6.50	392.4	0.58	11.20	3	AK	
C8RWVR_AL	382.5	-0.07	6.06	381.4	-0.15	3.78	4	AL	
CYGUQAQ	390.8	0.40	5.73	389.3	0.37	2.52	4	XX	
F6R8NR_AL	376.0	-0.43	4.78	372.1	-0.75	3.36	3	AL	
FLY68Q_AL	379.5	-0.23	5.64	380.6	-0.19	4.45	3	AL	
PHMKTF_AL	366.8	-0.94	8.57	370.7	-0.84	2.81	4	AL	
Q6TQWC	372.5	-0.62	7.62	389.3	0.37	11.23	4	PP	
QN8WQG_AL	419.3	1.98 *	5.67	418.2	2.26 *	2.87	4	AL	
TYFPND	406.1	1.24	9.58	399.4	1.03	9.50	4	XX	
V7FJ7C_AL	373.7	-0.55	5.68	374.0	-0.62	0.32	L	XX	
VAEV2C_AL	380.6	-0.17	10.23	381.5	-0.14	2.59	4	AL	
W9H2GD	381.5	-0.12	3.81	383.5	0.00	3.71	4	XX	
YWTY4A_AL	405.6	1.22	7.37	397.3	0.89	9.13	4	AL	
Z2HV77_AL	363.0	-1.15	4.74	366.1	-1.14	2.63	4	AL	
Consensus (All Labs) Results									
Month Mean	383.67			Grand Mean	383.58				
Avg SD	6.50			Avg SD Months	5.68				
SD btwn Labs	17.99			SD btwn Labs	15.34				
Labs Incl'd	17			Labs Incl'd	17				

## Key to Instrument Codes Reported by Participants

AK L &amp; W Autoline 300

PP Technidyne Profile/Plus

XX Instrument make/model not specified by lab

AL L &amp; W Autoline 400

TS TMI Monitor/Smoothness



# Containerboard Interlaboratory Testing Program

Analysis 231

## Internal Bond, 42 lb Linerboard - 42L

TAPPI Official Test Method T569

**Report #665**

**February 2025**

WebCode	Monthly Results			Cumulative Results					
	Mean	CPV	SD	Mean	CPV	SD	Months	Months	Inst
3QFB36	147.4	-0.12	10.24	148.3	-0.08	11.13	4	TM	
637LP2	152.8	0.13	4.49	153.2	0.16	6.13	4	TM	
6FQ8N2	152.2	0.10	8.50	160.2	0.51	7.42	4	TM	
772U93	173.4	1.04	14.15	162.3	0.61	8.06	4	HY	
8T69HX	151.4	0.06	3.21	147.4	-0.12	3.61	4	TM	
9E6NFZ	140.6	-0.42	6.77	133.8	-0.79	9.59	4	TM	
A27GRU	131.2	-0.84	3.11	138.7	-0.55	11.44	4	TM	
BK6PUY	150.8	0.04	6.06	158.1	0.40	11.09	4	HZ	
BPVY4X	161.0	0.49	5.00	159.6	0.48	4.93	4	HY	
CYGUAQ	183.4	1.49	11.58	183.9	1.67	4.51	4	HY	
EMZHFT	204.3	2.42 *	10.87	192.4	2.09 *	8.95	4	HY	
FBFRUT	119.2	-1.37	3.49	121.2	-1.41	2.51	4	TM	
FLY68Q	142.2	-0.35	7.15	142.0	-0.39	0.24 L	3	TM	
GQQVTT	161.0	0.49	9.67	164.4	0.71	8.58	4	HZ	
LKBLTL	153.2	0.14	12.54	145.6	-0.21	5.42	4	TM	
Q6TQWC	161.8	0.53	9.88	168.1	0.89	4.54	4	HY	
QN8WQG	127.8	-0.99	12.53	124.1	-1.27	4.19	3	TM	
TCRVYF	121.5	-1.27	15.45	124.8	-1.23	4.64	2	TM	
VAEV2C	163.6	0.61	11.01	161.9	0.59	2.63	4	LZ	
W9H2GD	104.8	-2.01 *	4.66	109.6	-1.98 *	3.28	4	SC	
XBEREC	165.0	0.67	7.81	163.2	0.66	7.99	4	HY	
Z2HV77	131.0	-0.85	6.63	134.4	-0.76	4.86	4	TM	
<b>Consensus (All Labs) Results</b>									
Month Mean	149.98			Grand Mean	149.85				
Avg SD	9.13			Avg SD Months	6.87				
SD btwn Labs	22.46			SD btwn Labs	20.37				
Labs Incl'd	22			Labs Incl'd	22				

### Consensus By Method

Test Method	Group Mean	SD btwn Group	Difference from Grand Mean	Labs Included
Scott Bond Type	143.75	18.82	6.23	17
Modified Scott Bond Mechanics	183.75	20.35	33.77	3



## Containerboard Interlaboratory Testing Program

Analysis 231

### **Internal Bond, 42 lb Linerboard - 42L**

TAPPI Official Test Method T569

**Report #665**

**February 2025**

#### **Key to Instrument Codes Reported by Participants**

<b>HY</b>	Huygen Digitized Scott Internal Bond Tester	<b>HZ</b>	Huygen Internal Bond Tester with AccuPress
<b>LZ</b>	L&W (model not specified)	<b>SC</b>	Scott Internal Bond Tester (Manual)
<b>TM</b>	TMI Monitor/Internal Bond Tester		



## Containerboard Interlaboratory Testing Program

Analysis 234

## COF Inclined Plane (Slide Angle), 42 lb Linerboard - 42L

TAPPI Official Test Method T815

Report #665

February 2025

WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SD	Mean	CPV	SD	Months	Months
3QFB36	31.1	1.00	4.67	30.8	0.94	0.99	4	
3W24D4	28.0	0.12	3.16	26.4	-0.39	1.82	4	
4DQH83	20.4	-2.06 *	1.14	20.7	-2.09 *	0.96	4	
637LP2	20.8	-1.94 *	3.83	24.3	-1.00	2.91	4	
6738G6	21.2	-1.83	2.17	21.9	-1.74	1.15	4	
6FQ8N2	29.2	0.47	5.97 H	29.8	0.63	0.90	4	
772U93	26.6	-0.28	4.16	27.2	-0.14	1.07	4	
7M6GP4	25.1	-0.71	0.74	24.3	-1.00	0.63	4	
9E6NFZ	33.4	1.67	3.05	31.9	1.26	2.67	4	
A27GRU	31.0	0.98	2.92	28.5	0.25	2.23	4	
ARMXHV	20.8	-1.94 *	1.30	20.8	-2.05 *	0.00	1	
BPVY4X	27.4	-0.05	1.14	28.1	0.12	0.79	4	
BZJV6Y	28.2	0.18	0.84	26.6	-0.32	1.34	4	
C8RWVR	28.6	0.30	5.00	29.5	0.56	1.84	4	
CYGUAAQ	28.0	0.13	3.02	29.2	0.48	1.23	4	
EMZHFT	30.4	0.81	2.51	30.4	0.81	0.57	4	
FBFRUT	23.8	-1.08	2.17	25.4	-0.68	1.30	4	
GQQVTT	30.6	0.87	2.61	30.1	0.72	2.23	4	
JF2QQL	32.6	1.44	3.71	30.8	0.95	3.82	4	
PYTT9G	27.2	-0.11	0.45 L	27.5	-0.05	0.26 L	4	
Q6TQWC	27.4	-0.05	3.78	28.2	0.15	0.60	4	
QN8WQG	30.2	0.75	1.92	29.1	0.43	0.84	4	
TYFPND	31.1	1.01	4.76	31.4	1.11	3.36	4	
UGZFMD	26.4	-0.34	1.14	27.5	-0.04	1.73	4	
V3F9AC	27.8	0.06	3.90	29.9	0.66	3.08	4	
VAAKYE	28.9	0.38	2.45	27.2	-0.14	1.70	4	
VAEV2C	26.3	-0.37	1.30	24.2	-1.03	3.03	4	
W9H2GD	24.2	-0.97	0.84	23.6	-1.21	2.24	4	
XBEREC	25.8	-0.51	1.30	24.6	-0.91	2.81	4	
Y7JDD9	28.5	0.27	3.27	29.8	0.64	2.00	4	
YWTY4A	32.6	1.44	2.63	34.7	2.12 *	4.19 H	4	
Z2HV77	28.8	0.35	3.90	30.9	0.97	1.62	4	
Consensus (All Labs) Results								
Month Mean	27.58			Grand Mean	27.66			
Avg SD	3.03			Avg SD Months	2.07			
SD btwn Labs	3.48			SD btwn Labs	3.34			
Labs Incl'd	32			Labs Incl'd	32			



Containerboard Interlaboratory Testing Program  
Analysis 234  
**COF Inclined Plane (Slide Angle), 42 lb Linerboard - 42L**  
TAPPI Official Test Method T815

Report #665  
February 2025

**Key to Instrument Codes Reported by Participants**

**ZZ** Instruments No Longer Tracked



Containerboard Interlaboratory Testing Program  
Analysis 237  
**Air Resistance, 42 lb Linerboard - 42L2**  
TAPPI Official Test Method T460

Report #665  
February 2025

WebCode	Monthly Results			Cumulative Results					
	Mean	CPV	SD	Mean	CPV	SD	Months	Months	Inst
2RTHP8_AL	33.1	0.28	1.10	33.1	0.38	0.07	2	2	AL
3QFB36_AL	31.8	-0.38	2.22	32.5	-0.12	0.54	4	4	AL
3W24D4_AL	30.8	-0.92	2.12	31.6	-1.01	1.03	4	4	AL
637LP2	32.0	-0.32	2.18	33.4	0.73	1.60	4	4	GA
6738G6	28.0	-2.41 *	3.22	29.3	-3.24 X	1.16	4	4	TD
6FQ8N2	32.7	0.04	1.38	31.6	-0.99	0.85	4	4	LP
6X93M4	30.7	-1.00	0.87 L	31.7	-0.96	0.71	4	4	LP
772U93	32.5	-0.02	2.52	33.2	0.55	0.67	4	4	TP
772U93_AL	30.8	-0.95	1.84	31.6	-1.00	0.60	4	4	XX
77XGGZ	34.6	1.06	2.05	33.1	0.38	1.68	4	4	LA
7M6GP4_AL	32.5	-0.04	1.51	32.0	-0.65	0.99	4	4	AL
9E6NFZ_AL	31.2	-0.70	0.93 L	32.6	-0.08	1.44	4	4	AL
9XDZ2V	35.9	1.76	4.28 H	33.0	0.31	2.59	3	3	GG
A27GRU	31.5	-0.56	1.47	32.5	-0.13	1.56	4	4	LP
A27GRU_AL	36.4	2.00 *	2.35	35.3	2.60 *	0.79	4	4	AL
A2QX8W_AL	29.4	-1.69	2.98	30.4	-2.18 *	0.89	3	3	AK
ARMXHV	33.0	0.25	1.97	33.0	0.37	0.00	1	1	XX
BPVY4X	29.3	-1.75	2.39	31.2	-1.37	2.02	4	4	LP
BQ72PW	33.2	0.35	2.29	32.4	-0.23	1.15	4	4	LA
BZJV6Y_AL	35.7	1.67	1.45	33.9	1.17	1.94	4	4	AL
C8RWVR_AL	28.8	-1.98 *	1.53	30.9	-1.73	1.53	4	4	AL
CYGUAQ	32.5	-0.06	4.57 H	31.5	-1.10	1.80	4	4	TP
DE7CMR	33.2	0.32	2.02	33.0	0.34	0.68	4	4	LA
EMZHFT	31.9	-0.35	2.64	31.9	-0.75	0.77	4	4	LP
F6R8NR_AL	32.6	0.04	1.60	33.5	0.80	0.81	3	3	AL
FBFRUT_AL	32.1	-0.23	2.58	33.2	0.53	0.97	4	4	AL
FLY68Q_AL	31.3	-0.70	2.74	32.5	-0.14	1.11	3	3	AL
GQQVTT	32.6	0.03	2.39	33.0	0.36	0.93	4	4	LP
LLHYBN	34.3	0.92	2.00	32.8	0.12	2.56	4	4	XX
NHCE2K	33.0	0.23	1.15	32.5	-0.20	0.40	4	4	XX
P2HA9H	32.2	-0.18	2.14	32.9	0.25	1.88	4	4	LP
P9YRHJ_AL	33.9	0.71	3.24	33.2	0.53	1.06	4	4	AL
PHMKTF_AL	31.1	-0.75	2.50	34.0	1.31	3.22 H	4	4	XX
PYTT9G	32.9	0.18	2.56	33.1	0.38	0.31	4	4	LP
Q6TQWC	32.8	0.10	4.03 H	33.7	0.99	1.14	4	4	TP
QN8WQG_AL	32.7	0.09	1.49	32.8	0.18	0.16 L	4	4	AL
REXXCC	33.4	0.44	2.37	32.4	-0.27	0.77	4	4	LA
TCRVYF	30.6	-1.02	3.42	31.1	-1.51	0.66	2	2	GA
TYFPND	36.0	1.80	3.39	33.6	0.87	2.71	4	4	GA



Containerboard Interlaboratory Testing Program  
Analysis 237  
**Air Resistance, 42 lb Linerboard - 42L**  
TAPPI Official Test Method T460

Report #665  
February 2025

WebCode	Monthly Results				Cumulative Results					
	Mean	CPV	SD		Mean	CPV	SD	Months	Months	Inst
UGZFM	32.1	-0.23	1.81		31.0	-1.60	0.85	4	LA	
V3F9AC	31.5	-0.55	0.93	L	31.1	-1.46	0.63	4	LP	
V7FJ7C_AL	32.8	0.13	2.10		32.8	0.17	0.57	4	XX	
VAAKYE_AL	35.8	1.70	2.64		36.9	4.09	X	0.78	4	AL
VAEV2C_AL	36.0	1.80	1.65		34.8	2.09	*	1.87	4	AL
YWTY4A_AL	32.4	-0.09	2.01		33.3	0.63	0.74	4	AL	
Z2HV77_AL	32.1	-0.23	1.92		32.8	0.16	0.83	4	AL	
Z3EE88	34.8	1.20	0.82	L	33.9	1.24	1.19	4	XX	
Consensus (All Labs) Results										
Month Mean	32.57			Grand Mean	32.65					
Avg SD	2.36			Avg SD Months	1.36					
SD btwn Labs	1.89			SD btwn Labs	1.03					
Labs Incl'd	47			Labs Incl'd	45					

#### Key to Instrument Codes Reported by Participants

AK	L & W Autoline 300	AL	L & W Autoline 400
GA	Gurley Precision #4340 Automatic Densometer	GG	Gurley Precision #4320 Densometer
LA	L&W Autoline (237 Enrollment)	LP	L&W Air Permeance Tester SE 166
TD	TMI Gurley Densometer	TP	Technidyne Profile/ plus Roughness & Porosity
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program  
Analysis 240

Report #665  
February 2025

Flat Crush Strength (CMT), 26 lb Corrugating Medium - CM13  
TAPPI Official Test Method T809

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
26ZFQZ	59.1 L	58.3 L	61.3 L	62.7 L	60.3	0.79	0.7	2.0	60.5	0.93	0.9	1.7	16	XX
2T4CL8	55.2	57.7	55.8	56.0	56.2	-0.60	3.1	1.1	56.8	-0.32	3.1	1.5	16	EM
3ELUD4	62.2	65.2 *	59.9	61.8	62.3	1.43	3.2	2.2	60.1	0.78	3.9	5.0	13	LD
3W24D4	55.9	54.5 L	56.9	58.8	56.5	-0.48	2.9	1.8	55.3	-0.82	3.8	2.0	16	LZ
4DQH83	60.9	59.9	59.0	59.3	59.7	0.59	4.3	0.8	60.3	0.84	3.6	1.5	16	LD
627TL3	67.4 *	66.5 *	67.5 *	67.6 *	67.3	3.08 X	4.6	0.5	67.2	3.15 X	5.0	2.0	16	TX
637LP2	52.1	57.9	54.4	53.2	54.4	-1.18	3.9	2.5	55.4	-0.79	3.8	1.7	16	LD
6X93M4	59.1	58.6	59.7	55.6	58.3	0.09	3.7	1.8	58.1	0.11	3.3	1.5	16	LD
772U93	58.4	59.0	55.6	57.6	57.6	-0.11	4.0	1.5	57.9	0.04	3.3	1.6	16	LD
87ABWZ	57.6 L	57.5 L	57.6 L	57.5 L	57.6	-0.14	0.7	0.1 L	57.6	-0.06	0.7	0.1 L	16	LD
8T69HX	65.1	66.5 *	64.2	65.4	65.3	2.44 *	2.8	0.9	63.5	1.94 *	3.6	2.6	16	LC
9JUB3T	59.2 H	59.3	59.9	66.9 *	61.3	1.11	6.2	3.8 H	61.7	1.33	4.9	2.9	16	LD
9WKXG2	64.0 L	63.6	62.7	64.3	63.6	1.89	2.2	0.7	62.8	1.70	3.1	0.9	16	TB
A27GRU	50.6 *	50.7 *	50.9	50.7 *	50.7	-2.40 *	2.9	0.1 L	52.2	-1.84	4.1	1.1	16	LD
ARMXHV	58.8	58.4	55.6	55.7	57.1	-0.28	4.4	1.7	59.5	0.57	4.4	2.3	16	LD
B3GJDT	49.7 *	48.0 X	48.9 *	46.0 X	48.1	-3.26 X	3.7	1.6	50.0	-2.60 *	4.0	3.3	16	TH
BK6PUY	58.6	59.3 L	58.3	58.5	58.7	0.23	2.8	0.4	56.7	-0.35	3.0	1.5	16	LD
BPVY4X	No Data	No Data	No Data	54.8	54.8	-1.04	3.0	0.0	51.4	-2.12 *	2.2	11.6 H	5	LD
CYGUAQ	55.6	60.4	59.5	59.2	58.7	0.24	4.0	2.1	58.1	0.13	3.8	1.8	16	LC
DE7CMR	62.0	56.6 H	63.2	63.1	61.2	1.08	9.8	3.1	60.1	0.79	6.5	2.9	16	TU
E6HJBV	62.8	62.1	62.6	63.6	62.8	1.60	3.3	0.6	62.9	1.74	3.2	1.1	16	LC
EMZHFT	60.0	60.3	56.4	59.0	58.9	0.32	3.8	1.8	60.0	0.75	4.8	2.3	16	XX
FBFRUT	60.3	58.8	No Data	60.8	60.0	0.66	4.6	1.0	60.1	0.78	3.9	3.7	13	LC
GAKGNR	55.6	55.5 L	62.2	58.2	57.9	-0.04	3.0	3.1	58.8	0.37	3.7	2.2	16	LD
GQQVTT	58.8	59.8	59.9	61.5	60.0	0.67	4.9	1.1	59.2	0.48	4.6	2.0	15	LZ
H9J3FQ	53.3	54.9	55.2	54.6	54.5	-1.15	3.2	0.9	54.3	-1.15	3.0	1.6	12	LD
HRWKMP	61.2	60.9	59.3	61.3	60.7	0.90	4.2	0.9	59.4	0.56	4.1	1.4	12	LD
JF2QQL	56.5 H	60.6	57.7	60.5	58.8	0.29	4.8	2.0	58.7	0.31	4.4	1.7	8	TH
JQ3ABM	58.8	57.1	57.7	57.3	57.7	-0.08	4.2	0.7	58.7	0.32	4.4	1.9	16	LD
LLHYBN	55.3	51.9	51.5	55.9	53.6	-1.44	3.1	2.2	55.3	-0.82	2.9	2.2	10	LD
MR2TGK	53.7	54.4	56.5	52.0	54.1	-1.27	5.0	1.9	54.1	-1.20	5.0	1.9	4	LC
P2HA9H	57.6 L	57.8 L	57.6 L	58.4 L	57.8	-0.05	1.4	0.4	58.2	0.15	2.1	0.9	16	LD
PHMKTF	53.4	55.5	56.8	56.2	55.5	-0.83	4.3	1.5	55.7	-0.67	3.6	2.4	16	LD
PYTT9G	58.0	57.3 L	58.2	57.4	57.7	-0.08	1.8	0.4	57.9	0.05	1.9	0.3 L	16	LD
Q2DY7J	61.6	59.3	60.8	59.2	60.2	0.74	4.3	1.2	60.3	0.84	4.2	1.7	16	LD



Containerboard Interlaboratory Testing Program  
Analysis 240

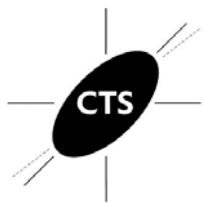
Report #665  
February 2025

**Flat Crush Strength (CMT), 26 lb Corrugating Medium - CM13**  
TAPPI Official Test Method T809

WebCode	Weekly Means				Monthly Results					Cumulative Results									
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst					
Q6TQWC	52.9	55.4	52.8	55.0	54.0	-1.31	3.5	1.4	55.0	-0.91	3.4	1.4	16	LD					
R8EV6A	59.6	L	59.6	L	59.3	L	59.2	L	59.4	0.48	0.8	0.2	L	53.8	-1.33	0.9	3.5	16	TU
RV4DGD	59.5	59.2	62.3	57.1	59.5	0.52	2.9	2.1	59.0	0.43	3.1	1.5	14	LZ					
TYFPND	59.3	58.0	57.5	58.5	58.3	0.12	3.8	0.7	59.2	0.49	3.5	1.7	16	LZ					
UGZFMD	56.2	52.2	50.7	52.1	52.8	-1.73	3.9	2.4	55.8	-0.65	5.4	3.0	16	MB					
V3F9AC	61.8	57.5	60.5	61.0	60.2	0.75	3.8	1.9	60.4	0.89	4.0	3.2	12	LD					
VAEV2C	55.3	55.1	L	59.0	57.0	56.6	-0.46	3.3	1.8	54.7	-1.03	3.8	2.8	16	LD				
VZ9ZY8	57.8	58.0	56.5	58.6	57.7	-0.09	4.1	0.9	58.2	0.15	3.8	1.2	16	LD					
W83F8B	55.5	56.7	53.4	H	50.2	*	54.0	-1.33	5.8	2.8	59.4	0.54	5.0	4.2	16	LD			
Y7JDD9	57.6	58.4	54.5	60.2	57.7	-0.09	3.5	2.4	56.2	-0.53	3.4	1.9	16	EN					
Z2HV77	57.2	58.0	53.7	53.8	55.7	-0.76	3.9	2.2	55.2	-0.84	3.6	1.8	16	LD					
<b>Consensus (All Labs) Results</b>																			
Wk Mean	58.01	58.27	57.80	58.37	Month Mean			57.96	Grand Mean			57.74							
Avg SDr	3.80	4.63	3.81	3.52	Avg SD			3.93	Avg SD			3.76							
SD btwn Labs	3.68	3.34	3.84	3.97	SD btwn Labs			3.01	SD btwn Labs			2.99							
Labs Incld	45	44	44	45	SD btwn Wks			1.75	SD btwn Wks			2.81							
Labs Excld	0	1	0	1	Labs Incld			44	Labs Incld			45							
Labs not Rcvd	1	1	2	0															

**Key to Instrument Codes Reported by Participants**

EM	Emerson 1200 Series	EN	Emerson 2200 Series
LC	L&W Crush Tester 48	LD	L&W Crush Tester 248
LZ	L&W Crush Tester (model not specified)	MB	Messmer Buchel K440
TB	TMI Monitor/Compression Tester, 17-70	TH	TMI Compression Tester, Model 17-76
TU	TMI Universal Crush Tester (TMI K440)	TX	TMI Crush Tester (model not specified)
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program  
Analysis 250

Report #665  
February 2025

**Fluted Edge Crush Strength (CFC), 26 lb Corrugating Medium - CM13**  
TAPPI Official Test Method T843

WebCode	Weekly Means				Monthly Results				Cumulative Results										
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst					
26ZFQZ	69.5	L	67.8	L	70.5	L	72.6	*L	70.1	1.10	0.8	2.0	70.7	1.54	1.0	1.3	16	XX	
3W24D4	64.2		60.6		63.7		54.8	X	60.8	-1.78	4.8	4.3	H	61.2	-2.41	*4.7	3.5	16	LZ
6X93M4	68.9		68.8		69.2	L	65.9		68.2	0.50	2.6	1.5		67.9	0.37	3.5	1.8	16	LD
772U93	71.2		69.4		67.8		68.8		69.3	0.84	3.2	1.4		69.7	1.14	3.0	1.3	16	LD
A27GRU	58.2	*H	58.1	*H	58.6	XH	58.9	XH	58.4	-2.53	*	8.0	0.4	58.0	-3.72	X6.5	1.6	16	LD
CYGUAAQ	67.8		65.3	H	69.2		69.4		67.9	0.42	4.6	1.9		68.6	0.67	3.6	1.6	16	LC
EMZHFT	69.4		68.7		68.6		68.0		68.7	0.65	4.2	0.5		68.0	0.44	3.6	1.7	12	XX
FBFRUT	72.5		66.2	No DATA			69.2		69.3	0.85	3.1	3.2		68.3	0.53	4.2	3.4	13	LC
JQ3ABM	64.3		64.8		64.2		63.8	H	64.3	-0.71	5.3	0.4		64.8	-0.89	4.4	1.8	16	LD
MR2TGK	62.0		64.4		66.5		68.0		65.2	-0.42	3.6	2.6		65.2	-0.73	3.6	2.6	4	LC
NHCE2K	66.1		65.2	L	65.5		65.5	L	65.6	-0.32	1.5	0.4		65.3	-0.70	1.9	1.0	16	LZ
P2HA9H	69.5	L	69.6	L	70.7	L	69.8	L	69.9	1.03	1.2	0.6		69.8	1.17	1.8	1.0	16	LD
PHMKTF	61.8	L	61.8		65.8		61.8	*	62.8	-1.17	3.7	2.0		64.1	-1.20	3.7	2.0	16	XX
PYTT9G	67.6		67.8		68.0		67.9		67.8	0.39	2.2	0.2	L	67.4	0.17	2.1	0.6	16	LD
Q6TQWC	70.1		69.4		67.4		70.1		69.3	0.83	3.3	1.3		69.0	0.82	3.6	1.1	16	LD
RV4DGD	62.9		65.0		66.3		65.4		64.9	-0.53	3.5	1.4		64.9	-0.85	3.7	1.8	14	LZ
V3F9AC	61.8		67.1		67.3		67.1	H	65.8	-0.23	4.8	2.7		66.2	-0.31	4.2	2.5	12	LD
VAEV2C	69.8		66.4		68.0		68.6		68.2	0.50	3.4	1.4		66.4	-0.24	3.7	2.3	16	LD
Z2HV77	66.3	L	67.9		71.6		67.8		68.4	0.57	3.4	2.3		68.2	0.48	3.8	1.7	16	LD

**Consensus (All Labs) Results**

Wk Mean	66.52	66.01	67.66	67.63	Month Mean	66.57	Grand Mean	66.99
Avg SDr	3.58	3.96	3.42	3.80	Avg SD	3.88	Avg SD	3.46
SD btwn Labs	3.89	3.15	2.20	2.58	SD btwn Labs	3.22	SD btwn Labs	2.41
Labs Incld	19	19	17	17	SD btwn Wks	1.92	SD btwn Wks	2.00
Labs Excld	0	0	1	2	Labs Incld	19	Labs Incld	18
Labs not Rcvd	0	0	1	0				

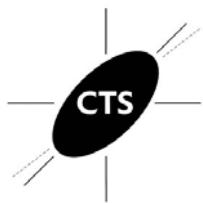
**Key to Instrument Codes Reported by Participants**

LC L&W Crush Tester 48

LZ L&W Crush Tester (model not specified)

LD L&W Crush Tester 248

XX Instrument make/model not specified by lab



## Containerboard Interlaboratory Testing Program

Analysis 255

## Ring Crush (RCT), 26 lb Corrugating Medium - CM13

TAPPI Official Test Method T822

Report #665

February 2025

WebCode	Weekly Means				Monthly Results					Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst	
3ELUD4	41.0	47.8 *	37.5	43.6	42.5	0.08	4.1	4.3 H	44.3	1.08	3.6	2.7	13	LZ	
4DQH83	34.6 X	35.2 X	30.3 X	33.2 X	33.3	-4.80 X	3.1	2.2	32.8	-5.37 X	3.9	1.7	16	XX	
627TL3	45.8 *	45.2	48.0	39.7	44.6	1.23	3.5	3.5 H	45.1	1.51	3.7	2.1	16	LZ	
6X93M4	39.9	38.8	37.4	40.4	39.1	-1.70	3.0	1.4	39.1	-1.82	2.8	1.8	16	LD	
772U93	42.5	42.7	43.7	41.4	42.6	0.12	3.1	1.0	41.8	-0.33	2.7	1.1	16	LD	
87ABWZ	44.5 L	44.6 L	44.8 L	44.7 L	44.6	1.22	0.8	0.1 L	44.6	1.22	0.7	0.1 L	16	LD	
9JUB3T	44.4	44.3 H	48.8 *	48.5 *H	46.5	2.22 *	4.6	2.4	45.0	1.48	3.8	2.1	16	EM	
9WKXG2	40.9 L	41.3	39.5 L	41.6 L	40.8	-0.80	1.3	0.9	41.4	-0.57	2.1	1.2	16	XX	
A2QX8W	41.7	40.5	40.3	44.4 L	41.7	-0.33	1.7	1.9	41.2	-0.68	1.9	3.0	12	LD	
ARMXHV	41.1	42.8	40.4	40.1	41.1	-0.66	2.6	1.2	41.0	-0.77	3.4	2.4	16	LD	
BK6PUY	42.9	42.9	43.4	43.8	43.2	0.48	2.6	0.4	43.1	0.38	2.7	0.7	16	LD	
CYGUAQ	43.3	44.7	46.6	41.4	44.0	0.88	2.9	2.2	42.6	0.12	3.0	1.7	16	LC	
E6HJBV	41.4	41.9	39.8	40.4 L	40.9	-0.77	1.9	0.9	42.3	-0.07	2.5	1.7	16	XX	
EMZHFT	40.4	40.7	42.8 H	40.1	41.0	-0.71	4.1	1.2	41.4	-0.58	3.6	1.1	16	XX	
EUXGJN	42.1	42.7	42.1	43.3	42.6	0.13	2.6	0.6	41.6	-0.46	2.5	1.2	16	TH	
GAKGNR	40.2	39.1	39.4	38.4	39.3	-1.61	3.0	0.8	39.8	-1.45	2.9	1.5	16	LD	
LLHYBN	44.0	43.7	46.0	43.4	44.3	1.04	2.9	1.1	44.3	1.07	2.5	1.5	16	LD	
P2HA9H	40.1	40.6 L	40.4 L	40.4 L	40.4	-1.03	1.3	0.2 L	41.0	-0.78	1.9	1.1	16	LD	
PHMKTF	40.9	43.9 H	39.6	36.2 *	40.2	-1.16	4.1	3.2	40.3	-1.17	3.6	2.7	16	LD	
Q2DY7J	42.7	43.8	44.3	44.4	43.8	0.77	3.6	0.8	44.1	0.94	4.0	1.3	16	LD	
Q6TQWC	41.9	42.5	43.1	42.5	42.5	0.08	3.3	0.5	41.2	-0.67	3.4	1.4	16	LD	
R8EV6A	42.0 L	42.0 L	41.9 L	42.0 L	42.0	-0.20	0.6	0.1 L	40.6	-0.99	0.9	3.6	16	TU	
TYFPND	40.9	38.9	41.3	39.0	40.0	-1.23	3.6	1.2	45.6	1.81	3.5	7.7 H	16	LD	
UGZFMD	44.1	41.2	45.0	41.1 H	42.8	0.27	5.0	2.0	43.7	0.72	4.3	1.6	16	MB	
VAEV2C	44.6 H	44.7	44.8	43.6	44.4	1.11	4.2	0.5	42.6	0.10	3.4	1.8	16	LD	
VZ9ZY8	43.6	44.7	41.7	43.7	43.4	0.57	2.8	1.2	42.2	-0.10	3.0	1.4	16	LD	
					Consensus (All Labs) Results										
Wk Mean	42.27	42.65	42.50	41.92	Month Mean			42.33	Grand Mean			42.39			
Avg SDr	3.21	3.19	3.13	3.06	Avg SD			3.15	Avg SD			3.03			
SD btwn Labs	1.64	2.18	3.04	2.52	SD btwn Labs			1.88	SD btwn Labs			1.79			
Labs Incld	25	25	25	25	SD btwn Wks			1.72	SD btwn Wks			2.39			
Labs Excld	1	1	1	1	Labs Incld			25	Labs Incld			25			
Labs not Rcvd	0	0	0	0											



## Containerboard Interlaboratory Testing Program

Analysis 255

### Ring Crush (RCT), 26 lb Corrugating Medium - CM13

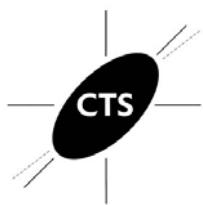
TAPPI Official Test Method T822

Report #665

February 2025

#### Key to Instrument Codes Reported by Participants

EM	Emerson 1200 Series	LC	L&W Crush Tester 48
LD	L&W Crush Tester 248	LZ	L&W Crush Tester (model not specified)
MB	Messmer Buchel K440	TH	TMI Compression Tester, Model 17-76
TU	TMI Universal Crush Tester (TMI K440)	XX	Instrument make/model not specified by lab



## Containerboard Interlaboratory Testing Program

Analysis 261

STFI, 26 lb Corrugating Medium - CM13

TAPPI Official Test Method T826

Report #665

February 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results									
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst				
26ZFQZ	14.1	13.5	13.6	14.2	13.8	0.19	1.2	0.4	14.0	0.36	1.1	0.6	16	XX				
2T4CL8	14.9	14.2	13.9	14.2	14.3	1.16	1.0	0.4	14.3	0.89	1.2	0.5	16	LH				
3ELUD4	11.4 X	11.8 X	12.9	10.1 X	11.5	-4.83	X	1.2	1.2 H	11.4	-4.22	X	1.2	1.0	LZ			
4DQH83	15.5 *L	13.6 L	13.7 L	14.5 L	14.3	1.20	0.0	0.9	14.0	0.36	0.0	0.5	16	LH				
77XGGZ	13.7 H	13.8 H	14.4	14.1	14.0	0.52	1.5	0.3	14.1	0.42	1.3	0.4	16	LA				
8T69HX	13.4 L	12.9 L	13.8 L	13.0	13.3	-1.06	0.6	0.4	13.3	-0.94	0.9	0.5	16	LA				
9JUB3T	10.8 XL	18.4 XL	17.0 XL	17.8 XL	16.0	4.81	X	0.0	3.5 H	15.3	2.60	* 1.0	1.9 H	16	LH			
A27GRU	12.8	13.1	12.9	13.2	13.0	-1.66	1.1	0.2	13.0	-1.47	1.3	0.2	L	16	LB			
A2QX8W	14.6	15.1 *	15.0 *	15.0 *H	14.9	2.55	*	1.2	0.2	14.6	1.39	1.2	0.6	12	LH			
ARMXHV	12.7	13.8	13.4 H	13.4	13.3	-0.97	1.3	0.4	13.4	-0.71	1.2	0.3	16	XX				
B3GJDT	13.6	13.9	13.6	14.3 H	13.8	0.16	1.4	0.3	20.4	11.40	X 1.4	5.3 H	12	TX				
BK6PUY	13.9	14.0	13.8	14.0	13.9	0.29	1.4	0.1	14.3	0.78	1.6	0.6	16	XX				
BPVY4X	NO DATA	NO DATA	NO DATA	13.3	13.3	-0.98	0.8	0.0	13.3	-0.87	0.9	0.0	L	4	LH			
CE8WQU	13.3	13.3 H	13.2	13.1	13.2	-1.21	1.5	0.1	13.3	-0.89	1.3	0.5	16	XX				
CYGUAAQ	13.9	13.8	13.8	13.5	13.8	-0.03	0.9	0.2	13.6	-0.45	1.0	0.2	L	16	LU			
DE7CMR	14.4	14.6	15.0 *H	13.9 H	14.5	1.54	1.4	0.5	14.6	1.36	1.2	0.6	16	LA				
JF2QQL	13.8	13.5 L	12.8	14.2	13.6	-0.46	0.9	0.6	13.6	-0.41	1.1	0.4	16	TT				
L324CL	14.3	13.6	14.3	13.5	13.9	0.37	1.3	0.4	13.9	0.15	1.2	0.5	12	LU				
PHMKTF	14.1	14.9	13.6	12.5 *	13.7	-0.04	1.2	1.0 H	13.3	-0.86	1.2	0.9	16	LZ				
PYTT9G	13.9	13.6	14.1	13.9	13.9	0.23	1.1	0.2	13.8	-0.10	1.1	0.2	L	16	LA			
Q6TQWC	13.0	12.4 *	12.9	13.7	13.0	-1.69	1.0	0.5	13.1	-1.33	1.0	0.3	16	LB				
QN8WQG	14.5	14.0	14.1	13.3	14.0	0.47	0.9	0.5	13.7	-0.16	1.2	0.5	16	LA				
R8EV6A	21.2 X	20.8 X	20.6 X	20.8 X	20.9	15.36	X	1.5	0.3	14.8	1.75	1.3	3.7 H	16	XX			
REXXCC	13.8 H	14.1	14.1	12.8 L	13.7	-0.10	1.4	0.6	13.4	-0.75	1.2	0.4	16	LA				
TYFPND	13.8	14.0	13.2	13.0	13.5	-0.63	1.0	0.5	13.3	-0.95	1.1	0.4	16	LB				
UGZFMD	14.0	14.8	12.9	14.4	14.0	0.61	1.1	0.8	13.9	0.11	1.2	0.5	16	LA				
VAEV2C	14.1 L	13.6	13.8	13.8	13.8	0.15	1.0	0.2	13.8	-0.04	0.9	0.4	16	LA				
Z2HV77	13.7	13.5	12.9	13.8	13.5	-0.63	1.1	0.4	13.7	-0.25	1.1	0.5	16	LA				
Consensus (All Labs) Results																		
Wk Mean	13.91	13.82	13.66	13.70	Month Mean				Grand Mean				13.83					
Avg SDr	1.14	1.27	1.09	1.13	Avg SD				Avg SD				1.16					
SD btwn Labs	0.63	0.62	0.64	0.60	SD btwn Labs				SD btwn Labs				0.57					
Labs Incld	24	24	25	25	SD btwn Wks				SD btwn Wks				0.94					
Labs Excld	3	3	2	3	Labs Incld				Labs Incld				26					
Labs not Rcvd	1	1	1	0														



# Containerboard Interlaboratory Testing Program

Analysis 261

**STFI, 26 lb Corrugating Medium - CM13**

TAPPI Official Test Method T826

**Report #665**

**February 2025**

## Key to Instrument Codes Reported by Participants

LA	L&W Autoline	LB	L&W Model 152
LH	L&W 282	LU	L&W 52 without moisture correction (was 53)
LZ	L&W (model not specified)	TT	TMI Short Span Compression, 17-34 (MB K455)
TX	TMI (model not specified)	XX	Instrument make/model not specified by lab

End of Report