

December 20, 2011

Ox Box

1555 Wrightwood Ct.
Addison, IL 60101

Attention: Guy Ockerlund
Regarding: Ecoboard Testing
Report No.: 15662w

Dear Mr. Ockerlund:

This is to report the results of Compressive Resistance and Edgewise Crush Tests conducted on Ox Box Ecoboard samples. Testing was completed December 19, 2011.

COMPRESSIVE RESISTANCE TEST

Materials Tested:

Four (4) Boxes of Weathered Ecoboard

Material: 1300# Triple Wall Corrugated Fiberboard. Meets ASTM D-5168-09
Size: 46.63" x 38.63" x 36"
Style: HSC, flutes vertical (High-crown A/C/A)

Equipment Used:

Figure 1. Modified Tinius-Olsen Compression Tester



Test Procedure:

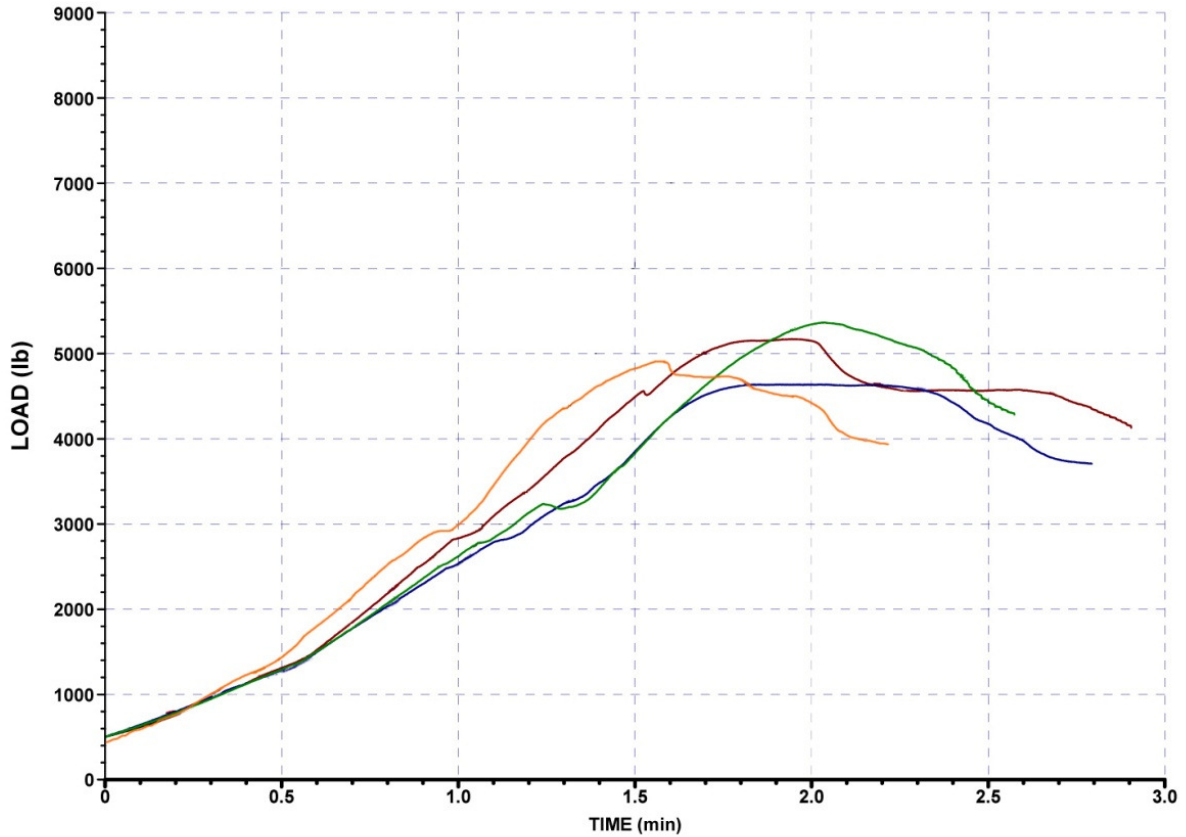
Testing was conducted in accordance with applicable ASTM D642 Standard Test Methods.

Results:

Figure 2. EcoBoard Load vs Time Chart

Ox Box EcoBoard Testing

APTL Report #15662



	ID	Peak Load	Load @ 0.5000 in	Extension @ Peak Load
Weathered A	■	5168 lb	2833 lb	0.9721 in
Weathered B	■	4634 lb	2534 lb	0.9506 in
Weathered C	■	5362 lb	2619 lb	1.0169 in
Weathered D	■	4872 lb	2600 lb	0.9589 in

Figure 3. Weathered Ecoboard Statistics

Peak Load		Load @ 0.5000 in		Extension @ Peak Load	
Average	Standard Deviation	Average	Standard Deviation	Average	Standard Deviation
5055 lb	377 lb	2662 lb	154 lb	0.9799 in	0.0338 in

EDGEWISE CRUSH TEST

Materials Tested:

Weathered Ecoboard

Non-weathered Baseline Ecoboard

Equipment Used:

Figure 4: L&W Crush Tester, Model S-3



Test Procedure:

Testing was conducted in accordance with applicable TAPPI T811 Standard Test Methods.

Results:

Figure 5: Crush Test Results

Ecoboard Edgewise Crush Test			
Non Weathered Baseline		Weathered	
Sample	ECT (lbs/lineal inch)	Sample	ECT (lbs/lineal inch)
1	174.5	1	174.0
2	170.0	2	164.0
3	179.5	3	166.0
4	180.0	4	167.5
5	165.0	5	165.0
6	172.5	6	169.0
7	166.5	7	178.5
8	175.5	8	177.0
9	172.5	9	176.0
10	166.0	10	158.0
High	180.0	High	178.5
Low	165.0	Low	158.0
Average	172.2	Average	169.5
Std Dev	5.4	Std Dev	6.7

Should you have any questions regarding the information provided, please contact us.

Very truly yours,

Anna Jo Isbell

Anna Jo (A.J.) Isbell
Materials Test Engineer

Anthony J White

Anthony J. White
President