



1500 Brigantine Drive
Coquitlam, BC, V3K 7C1

Telephone: 604-520-3321
Facsimile: 604-524-9186
www.intertek.com

January 29, 2015

Project No. G101954614

Mike Porter
Reforus Wood Systems Inc.
6435 Evans Road
Chilliwack, BC V2R 1K8

Ph: 604-858-7616
email: mike@reforus.com

Subject: Findings Letter Report 101954614COQ-001


Dear Mr. Porter,

Intertek has conducted freeze/thaw testing for Reforus Wood Systems Inc. on panels identified as Solid Wood Composite (SWC) panels (Coquitlam ID# VAN1501270904-001). Along with the SWC panels the client also provided 2 pieces of OSB and plywood to test alongside his panels, all samples were submitted to the Evaluation Center on December 12, 2014. Freeze/thaw resistance was conducted in accordance with ICC ES AC 11, Approved March 2010, *Acceptance Criteria For Cementitious Exterior Wall Coatings*, Section 4.2. Ten cycles of freeze/thaw were completed and then a visual inspection was conducted afterwards. Testing is complete, results and pictures can be found in the Appendices:

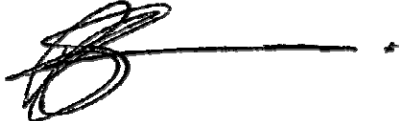
Table 1. Test Results		
Freeze/Thaw	Cycles	Notes/Observations
• Solid Wood Composite (SWC) panels	10 cycles	No visual sign of any deleterious effects
• OSB	10 cycles	Swelling and splitting of samples
• Plywood	10 cycles	Delamination of some layers

If there are any questions regarding the results contained in this report, or any of the other services offered by Intertek, please do not hesitate to contact the undersigned.

Completed by: Chris Chang, P.Eng.
 Title: Engineer
 Building Products

Signature: 

Reviewed by: Baldeep Sandhu
 Title: Lab Supervisor
 Building Products

Signature: 

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only the sample tested. This report by itself does not imply that the material, product or service is or has ever been under an Intertek certification program.



APPENDIX A: Test Data (1 page)



Test: **Freeze/Thaw**
 Date: 17-Dec-14
 Client: Reforus
 Product: **Solid Wood Composite (SWC) Panels**
 Specimen ID: **As Received**
 Test Standard(s) ICC-ES AC11
 Equipment: Temperature Controlled Oven (Intertek ID C-04585)
 Water bath
 Low Temperature Chamber (Intertek ID 25216)
 Graphtec Midi Logger (Intertek ID# P60557, cal due July 2015)
 Exposure cycle: Oven drying at a temperature of 49 ± 2°C for 8 hours
 Water immersion at a temperature of 23 ± 2°C for 8 hours
 Freezing at a temperature of -29 ± 2°C for 16 hours

Project: G101954614
 Eng./Tech: C. Chang
 Reviewer: B. Sandhu

Date	Cycle	Oven Drying		Immersion in water		Freezing*	
		In	Out	In	Out	In	Out
17-Dec-14	1	8:00 AM	4:00 PM				
18-Dec-14				8:00 AM	4:00 PM	4:00 PM	next day
19-Dec-14	2	8:00 AM	4:00 PM				
22-Dec-14				8:00 AM	4:00 PM	4:00 PM	next day
23-Dec-14	3	8:00 AM	4:00 PM				
24-Dec-14				8:00 AM	4:00 PM	4:00 PM	next day
5-Jan-15	4	8:00 AM	4:00 PM				
6-Jan-15				8:00 AM	4:00 PM	4:00 PM	next day
7-Jan-15	5	8:00 AM	4:00 PM				
8-Jan-15				8:00 AM	4:00 PM	4:00 PM	next day
12-Jan-15	6	8:00 AM	4:00 PM				
13-Jan-15				8:00 AM	4:00 PM	4:00 PM	next day
14-Jan-15	7	8:00 AM	4:00 PM				
15-Jan-15				8:00 AM	4:00 PM	4:00 PM	next day
19-Jan-15	8	8:00 AM	4:00 PM				
20-Jan-15				8:00 AM	4:00 PM	4:00 PM	next day
21-Jan-15	9	8:00 AM	4:00 PM				
22-Jan-15				8:00 AM	4:00 PM	4:00 PM	next day
26-Jan-15	10	8:00 AM	4:00 PM				
27-Jan-15				8:00 AM	4:00 PM	4:00 PM	next day

*Samples kept in the frozen condition over weekends

APPENDIX B: Photos (2 pages)



Photo 1. After 10 Cycles of Freeze-Thaw



Photo 2. After 10 Cycles of Freeze-Thaw: Plywood



Photo 3. After 10 Cycles of Freeze-Thaw: OSB



Photo 4. After 10 Cycles of Freeze-Thaw: Solid Wood Composite (SWC) Panels