



DANISH  
TECHNOLOGICAL  
INSTITUTE

Really  
Skudehavnsvej 1  
DK-2150 Nordhavn

Order no. 688995-2  
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Appendices 2  
Initials Jlj/abro/hbs

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## Test Report

Material: 8 mm Natural Fibre Composite (NFC) panel, said to be categorized under DS/EN 15534.  
5 panels 8 × 280 × 280 mm, marked BOMULD

Sampling: The test material was sampled by the client and delivered at the Danish Technological Institute 9-3-2016.

EN 310:1993 Wood-based panels - Determination of modulus of elasticity in bending and of bending strength  
EN 323:1993 Wood-Based Panels. Determination of density

Test pieces were cut from one panel only. Evaluation of test results according to EN 326-2.

The test material was conditioned one week at 23°C/50 % RH prior to testing.

Test Equipment Load cell: 5 kN Instron, IDD 8079  
Length transducer: ± 10 mm HBM, W10TK, EQP-615  
Balance: LPG 1502, IID 120892

Period March 2016

Result: Appendix 1: Summary of test results, Appendix 2: Individual test results.

Storage: The samples will be destroyed after 2 weeks, if nothing else has been agreed in writing.  
Terms: The test has been performed according to attached conditions, which are according to the guidelines laid down by DANAK (The Danish Accreditation). The testing is only valid for the tested specimen. The test report may only be extracted, if this is either public accessible, or if the laboratory has approved the extract.

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Date/place 17-03-2016, Danish Technological Institute, Wood Technology, Taastrup

Signature

Authorized Signatory

Verifier

Danish Technological Institute  
Wood Technology



**Test Report**

Panel:	<b>1154</b>	Test date:	<b>2016.03.15</b>	Tester:	<b>JLJ</b>
Grade:	<b>VARIOUS</b>	Customer:	<b>Really</b>		
Thickness [mm]:	<b>8</b>	Case no.:	<b>688995</b>		
Lab. no.:		Produced:		Week:	
Factory:		Prod.line:			
Material:	<b>NFC panel marked BOMULD</b>				

Tested Property		Mean	Std.	COV	Char.Value	Requirement
Thickness	mm :	7,76	0,09	1,1		
Density	kg/m <sup>3</sup> :	1097,2	9,1	0,8		
Bending - parallel	N/mm <sup>2</sup> :	52,70	1,70	3,2	49,08	
Modulus of E - parallel	N/mm <sup>2</sup> :	4048	51	1,3	3939	

Std. = Standard Deviation  
COV = Coefficient Of Variation  
Char.Value = Characteristic Value according to EN 326-2 Initial inspection

<b>Approved as:</b>	<b>Date</b>	<b>Sign.</b>
<b>Rejected as:</b>	<b>Date</b>	<b>Sign.</b>

# Individual test results

## APPENDIX 2

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**DANISH  
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### Test Report

Panel:	<b>1154</b>	Test date:	<b>2016.03.15</b>	Tester:	<b>JLJ</b>
Grade:	<b>VARIOUS</b>	Customer:	<b>Really</b>		
Thickness [mm]:	<b>8</b>	Case no.:	<b>688995</b>		
Lab. no.:		Produced:		Week:	
Factory:		Prod.line:			
Material:	<b>NFC panel marked BOMULD</b>				

Sample no.	Thicknes mm	Density kg/m <sup>3</sup>	Bending			Modulus of E		Swelling		Water Absorption	
			∥ N/mm <sup>2</sup>	⊥ N/mm <sup>2</sup>	Opt.1 N/mm <sup>2</sup>	∥ N/mm <sup>2</sup>	⊥ N/mm <sup>2</sup>	2 h %	24 h %	2 h %	24 h %
1	7,77	1085,7	50,46			4061					
2	7,62	1106,7									
3	7,76	1090,7	51,50			4035					
4	7,86	1105,5									
5	7,80	1097,6	53,10			4023					
7			53,79			4128					
9			54,63			3993					
Mean:	7,76	1097,2	52,70			4048					

Sample no.	Internal Bond			Block Shear N/mm <sup>2</sup>	Equivalent Internal Bond N/mm <sup>2</sup>	Permanent Swelling %	Moisture Content		Surface Soundness N/mm <sup>2</sup>
	Dry N/mm <sup>2</sup>	Opt.1 N/mm <sup>2</sup>	Opt.2 N/mm <sup>2</sup>				Uncond. %	Cond. %	
Mean									

15-03-2016 10:54:56 IrlJLJ

The general conditions pertaining to assignments accepted by Danish Technological Institute shall apply in full to the technical testing or calibration at Danish Technological Institute and to the completion of test reports or calibration certificates within the relevant field.

**Danish Accreditation (DANAK):**

DANAK is the national accreditation body in Denmark in compliance with EU regulation No. 765/2008.

DANAK participates in the multilateral agreements for testing and calibration under European co-operation for Accreditation (EA) and under International Laboratory Accreditation Cooperation (ILAC) based on peer evaluation. Accredited test reports and calibration certificates issued by laboratories accredited by DANAK are recognized cross border by members of EA and ILAC equal to test reports and calibration certificates issued by these members' accredited laboratories.

The use of the accreditation mark on test reports and calibration certificates or reference to accreditation, documents that the service is provided as an accredited service under the company's DANAK accreditation according to EN ISO IEC 17025.

**Construction Product Directive:**

The Danish Technological Institute guarantees that employees carrying out tests to be used together with harmonized standards under notification no. 1235 according to EU regulation 305/2011, article 43, satisfy all the requirements made for capability, integrity and impartiality. You find the CPR here:

[http://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/construction-products/index\\_en.htm](http://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/construction-products/index_en.htm)

September 2015