

Appendix 6 Declaration on emissions of formaldehyde

Applies to all wood-based panels/boards used in the production of Nordic Swan Ecolabelled buildings either as (building) panels/boards, boards in floors or boards in fittings. Panels that are not solely marketed as façade panels are exempted.

Product name, Denmark	
Product name, Finland WISA - SPRUCE	
Product name, Iceland WISA - SPRUCE	
Product name, Norway	
Product name, Sweden	
Manufacturer UPM PLYWOOD OY	
Product description STRUCTURAL PLYWOOD	<input checked="" type="checkbox"/> Wood based panels/boards <input type="checkbox"/> Boards in floorings <input type="checkbox"/> Boards in doors and fittings <input type="checkbox"/> Mouldings, baseboards and frames

1. Does the wood board/panel contain more than 3% by weight of formaldehyde-based additives?

Yes ☐ No ☒

If yes, fill in bullet 2 and then either bullet 3 or 4 below.

2. For laminated panels/boards:

Does the level of free formaldehyde in glue with any hardener (i.e. the final glue compound) exceed 2,000 ppm (0.2% by weight)?

Yes ☐ No ☐

If yes, fill in bullet 3 or 4 below.

3. Is the product certified with any of the following certifications?

E1 or M1 for MDF-boards

Yes ☐ No ☐

Class M1 for doors resistant to fire according to EN16034 (applies only to tambour doors in Finnish apartment buildings)

Yes ☐ No ☐ ☐

CARB PHASE II or Indoor Air Comfort GOLD/Indoor Air Comfort for all types of boards?

Yes ☒ No ☐

Yn pth

If yes, what certification is held? If no, please, fill in point 4.

N-18-044 CERTIFICATE ATTACHED

4. Does the emission of free formaldehyde exceed the below stated limit, in accordance with the current version of the standard at the time of sampling? Please tick below and attach test results.

EN 717-1:

0.124 mg/m³ air for MDF panels/boards

Yes ☐ No ☐

0.07 mg/m³ air for all other types of panels/boards

Yes ☐ No ☒

ISO 16000-9, M1, Eurofins or equivalent:

0,05 mg/m²/h for MDF-boards

Yes ☐ No ☐

0,03 mg/m²/h for all other boards

Yes ☐ No ☒

ASTM E1333:

0,09 ppm for MDF-boards

Yes ☐ No ☐

0,08 ppm for all other boards

Yes ☐ No ☒

JIS A1460:

0,90 mg/l for MDF-boards

Yes ☐ No ☐

0,53 mg/l for all other boards

Yes ☐ No ☐

ISO 12460-5 alternatively EN 120:


8 mg/100 g dry substance for MDF-boards

Yes ☐ No ☐

4 mg/100 g dry substance for all other boards

Yes ☐ No ☐

Signature of panel/board manufacturer

City and Date LAHTI 16.1.2020	Company UPM PLYWOOD OY
Name of contact person HÄRKÖNEN RIKU	Signature by contact person 
Phone +358 40 705 7991	E-mail riku.harkonen@upm.com

A correct signed declaration can result in the acceptance of use of the construction product in Nordic Swan Ecolabelled buildings. This shall not be mixed up with the Nordic Swan Ecolabelling of the construction product.

2/9 RTH

Entwicklungs- und Prüflabor Holztechnologie GmbH · Zellescher Weg 24 · 01217 Dresden · Germany

UPM Plywood Oy
Mr. Ilkka Seppänen
P.O. Box 203
Niemenkatu 16

15141 Lahti
FINLAND

ilkka.seppanen@upm.com

Entwicklungs- und Prüflabor
Holztechnologie GmbH
Zellescher Weg 24
01217 Dresden

Tel.: +49 351 4662 0
Fax: +49 351 4662 211
info@eph-dresden.de
www.eph-dresden.de

Hor/50
Dresden, 08 Apr 2019

Test Report Order no. 2519066

Client: UPM Plywood Oy
P.O. Box 203
Niemenkatu 16
15141 Lahti, FINLAND

Date of order: 6 February 2019

Order: Testing of wood based material according to QDF-guideline A-01 regarding:

- Formaldehyde release acc. to DIN EN 717-1,
- content of heavy metals (As, Pb, Cd, Cr, Cu, Hg)

Contractor: Entwicklungs- und Prüflabor Holztechnologie GmbH (EPH)
Zellescher Weg 24
01217 Dresden

Person(s) in charge: Dipl.-Ing. (FH) S. Hahn
Dr. C. Swaboda



Dipl.-Ing. M. Broege
Head of Laboratory Chemical Testing

The test report contains 3 pages. Any duplication, even in part, requires written permission of EPH. These test results are exclusively related to the tested material.

Geschäftsführer
Dr.-Ing. Rico Emmeler
Amtsgericht Dresden HRB 8072
USt-IdNr. DE 21 60 77 44 6

Commerzbank AG
SWIFT: DRES DE 33 050
IBAN: DE 13 8508 0000 0400 2982 00



1 Assignment

The Laboratory Chemical Testing of the EPH was instructed to perform tests following the QDF-guideline A-01 regarding the content of heavy metals (As, Pb, Cd, Cr, Cu, Hg) and the formaldehyde release according to the chamber method DIN EN 717-1 of one variant plywood.

2 Sample material

Sample handed over at EPH: 08 February 2019 airtight wrapped

Sample 1					
Product type:	Plywood	Number TP	Length	Width	Thickness
Product name:	WISA® - Spruce	2	500	500	12
Date production:	4 February 2019	1	200	200	12
Batch number:	ID. 1292351	Test pieces (TP)			
DoP:	UPM001CPR				

The test material was used up respectively is stored for 3 months.

3 Investigations carried out

3.1 Formaldehyde release following DIN EN 717-1

The determination of the formaldehyde release was carried out under following test conditions:

Sample 1			
Test pieces	2 TP à 200 x 280 x 12 [mm]	Temperature:	23°C ± 0,5 K
Test chamber:	KT 38 (0,225 m³)	Rel. air humidity:	45 ± 3 %
Test period:	18 March - 28 March 2019	Air exchange ratio:	1.0 ± 0.05/ h
Start tests:	19 March 2019	Loading ratio:	1.0 ± 0.02 m²/m³
Edge sealing:	U/A = 1.5	Parameter recording:	T; U

Limit of Detection (LOD) of test method: 0.008 ppm HCHO

Limit of Quantitation (LOQ) of test method: 0.02 ppm HCHO (1 ppm = 1.24 mg/m³)

3.2 Determination of content of heavy metals

The determination of heavy metals was conducted according to the IHD-standard IHD-W-448 (04/2017) after microwave digestion with concentrated nitric acid by inductively-coupled plasma atomic emission spectrometry (ICP-OES).

The test results are average values of a double determination related to dry mass¹, measured following DIN EN ISO 16979.

Limits of quantitation of heavy metals [mg/kg] (ppm)

Element	As	Cd	Cr	Cu	Hg	Pb
[mg/kg]	0.09	0.20	0.20	0.10	0.02	1.00

¹ following the German Waste Wood Regulation (Altholzverordnung - AltholzV)

4/9 HZ

4 Limit values

QDF – limit values mg/kg (ppm)

Element	Formaldehyde	As	Cd	Cr	Cu	Hg	Pb
Limit value QDF	$\leq 0.03 \text{ ppm}^*$	1	1	15	10	0.2	15

* following DIN EN 717-1

5 Test results and validation

			Sample 1	
			QDF-Criterion ²	
			Compliant	Not compliant
Formaldehyde				
HCHO	ppm	0.01 (240 h) ³	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Heavy metals				
As	mg/kg	< LOQ	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cd	mg/kg	< LOQ	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cr	mg/kg	0.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cu	mg/kg	0.7	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hg	mg/kg	< LOQ	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pb	mg/kg	< LOQ	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Moisture	%	6.4		

LOQ Limit of quantitation (see table point 3.2. Limits of quantitation of heavy metals)



Dipl.-Ing. (FH) S. Hahn
Person in charge

² Criterion QDF-RL A-01 (2013); Points 3.1 (Formaldehyde), 3.2 (PCP, Lindane), and 4 (Heavy metals)

³ Abort criteria DIN EN 717-1: the linear regression function from the test results of 4 consecutive days does not increase by more than $2 \mu\text{g}/\text{m}^3$



Contact person RISE
Rauno Pyykkö
Chemistry and Materials
+46 10 516 52 80
rauno.pyykkö@ri.se

Date
2018-11-01

Reference
N-18-044



UPM Plywood Oy - Pellos
FI-52420 Pellosniemi
Finland

EPA TSCA Title VI exemption

Issued to

UPM Plywood Oy - Pellos

Manufacturing plant

UPM Plywood Oy – Pellos, FI-52420 Pellosniemi, Finland

Product

Products: WISA spruce plywood and WISA twin plywood, thickness interval 4-30 mm.

Statement

The product described above fulfils the Ultra Low Emission Formaldehyde (ULEF) requirements for formaldehyde emission set out in the California Air Resources Board (CARB) regulations: §93120, title 17 California Code of Regulations and as a result the manufacturing plant has received an approval (Executive Order N-18-044, issued on August 21, 2018) for an exemption of the CARB Third Party Certification (TPC) program. This Executive Order is submitted to EPA and entitles the product to be exempt from the testing and certification requirements of EPA TSCA Title VI.

The exemption is valid for two years after issue of the Executive Order. After that period the manufacturer must reapply for exemption to either CARB or an EPA TSCA Title VI TPC.

RISE Research Institutes of Sweden AB Chemistry and Materials - Chemistry

Performed by

Signed by: Rauno Pyykkö (KMOO)
Reason: I am the author of this document
Date & Time: 2018-11-01 14:31:29 +01:00

Rauno Pyykkö

Examined by

Signed by: Tove Mali'n
Reason: I have reviewed this document
Date & Time: 2018-11-01 14:57:30 +01:00

Tove Mali'n

RISE Research Institutes of Sweden AB

Postal address
Box 857
SE-501 15 BORÅS
Sweden

Office location
Brinellgatan 4
SE-504 62 BORÅS

Phone / Fax / E-mail
+46 10 516 50 00
+46 33 13 55 02
info@ri.se

This document may not be reproduced other than in full,
except with the prior written approval of RISE.



RAKENNUSMATERIAALIEN PÄÄSTÖLUOKITUS

UPM Plywood Oy

Rakennustietosäätiö RTS sr:n luokitustyöryhmä on hyväksynyt tuotteenne:

Spruce
WISA®-Spruce
WISA®-SpruceBT
WISA®-Wall Ergo
WISA®-Kate Plus

Rakennusmateriaalien päästöluokkaan M1.

Luokitus on voimassa 14.4.2021 asti.

UPM Plywood Oy:llä on oikeus merkitä luokitellut tuotteensa luokitustunnuksella ja käyttää luokitustunnusta näiden tuotteiden markkinoinnissa.

Päätös perustuu seuraaviin asiakirjoihin: Sisäilmastoluokitus 2008 ja Rakennusmateriaalien päästöluokitus: yleiset ohjeet.

RAKENNUSTIETOSÄÄTIÖ RTS sr

Matti Rautiola
Yliasiamies

Arja Valtanen
Luokitustyöryhmän sihteeri



The Biofore
Company

18.12.2018

UPM Plywood Product safety profile

Product groups covered: Spruce uncoated

<div><p>PRODUCT COMPOSITION</p><p>Wood 89%</p><p>Moisture 8 %</p><p>Cured glue 3 %</p></div> <p>Bonding: Weather resistant gluing according to EN 314-2/class 3 Exterior Raw material: Spruce (<i>Picea abies</i>)</p>	<p>SAFETY INFORMATION</p> <p>No known health or environmental hazards. Not a hazardous product.</p> <p>PRODUCT SAFETY MANAGEMENT</p> <ul style="list-style-type: none">- Certified quality and environmental management system ISO 9001 and ISO 14001 at the mill- UPM Restricted Chemical Substances List (UPM RSL) in place <p>CERTIFICATES</p> <ul style="list-style-type: none">- CE- marking according to EN 13986 (Fulfills E1 classification requirement)- JAS Structural Plywood (F Four Star , formaldehyde emission limit fulfilled- PEFC/FSC CoC <p>All certificates available at www.wisaplywood.com/certificates</p>
---	---

INSTRUCTIONS FOR SAFE HANDLING AND USE	
Sawing, sanding or machining of plywood can generate wood dust. Both potential risks and instructions for safe use and handling are mostly related to formation of dust. It may present an explosion hazard if a dust cloud comes into contact with an ignition source. This product may release small quantities of formaldehyde (CAS No. 50-00-0) in gaseous form, however strictest regulations i.e. CARB Phase 2, ULEF are met. Check exposure limits for dust given by local authorities.	
Fire-fighting measures	Recommended extinguishing agents: Water, carbon dioxide, sand
First-aid measures	
- Skin contact	Wash affected areas with soap and water. Get medical advice if rash or persistent irritation or dermatitis occurs.
- Eye contact	Flush eyes with plenty of water. Move to fresh air. If irritation persists, get medical attention.
- Inhalation	Move to fresh air. Get medical advice if persistent irritation, severe coughing or breathing difficulty occurs.
- Ingestion	Not applicable.
Exposure controls/personal protection	Apply dust control measures to meet the exposure values given local authorities.
- Hand protection	Use of gloves recommended.
- Eye protection	Wear safety glasses when manufacturing or machining the product.
- Respiratory protection	Wear approved respirator when the allowable exposure limits may be exceeded.
- Skin protection	Wear suitable working clothes, gloves and shoes.
Stability and reactivity	
- Conditions to be avoided	Avoid contact with oxidizing agents. Avoid open flame. Product may ignite in excess of +200°C.
Disposal considerations	Re-use, energy recovering (burning) and disposal in landfill, in accordance with the local legislation.
Transport and storage information	http://cargohandling.upm.com

UPM Plywood Oy

Niemenkatu 16
P.O. Box 203
FI-15141 Lahti
Finland

Tel. +358 204 15 113
Fax +358 204 15 112

www.wisaplywood.com

Domicile Helsinki
Business Identity Code 183 9206-5

VAT No FI1839206-5

8/9 pth

Products are compliant with the following regulations (substances not intentionally added*).

Section1: Substances that shall not be used in UPM products		
	Regulation	Links to reference page (lists of substances)
1*	REACH / Regulation 1907/2006/EC Annex XVII or Annex XIV	REACH Annex XVII REACH Annex XIV
2* [†]	Candidate List of Substances of Very High Concern (SVHC) for Authorization	ECHA Website - Candidate list
3 [†]	EC No. 1272/2008 Classification, Labelling and Packaging of Substances and Mixtures: CMR-substances on category 1 and 2.	EC CLP 1272/2008
4	Brominated flame retardants: Directive 2003/11/EC restricting use of pentabromodiphenyl ether & octabromodiphenyl ether	Directive 2003/11/EC
5* [†]	RoHS 3 Directive 2015/863/EC	Delegated directive 2015/863/EC
6	Perfluorooctane sulfonates (PFOS and PFOS-related chemicals) and/or perfluorooctane acid (PFOA) and/or its salts: Directive 2006/122/EC	Directive 2006/122/EC
7	Triclosan: 2,4,4'-trichloro-2'-hydroxydiphenyl ether CAS3380-34-5, EU Commission Decision of 19 March 2010 under Directive 2002/72/EC	Commission Decision 19 March 2010
8	Ozone depleting substances: Montreal protocol and EU Directive 2037/2000/EC	Montreal Protocol 2000 Directive 2037/2000/EC
9	Indicative list of substances controlled under Regulation (EC) No 1005/2009 04 February 2011	http://ec.europa.eu/clima/policies/ozone/docs/substances_en.pdf
10	Persistent Organic Pollutants (POPs): Regulation (EC) No 850/2004 and amending Directive 79/117/EEC, Stockholm Convention, UNEP 12 chemicals	POPs Stockholm Convention POPs UNEP 12 chemicals
11	OSPAR: The list of chemicals for priority action, Part A	OSPAR list
12	HELCOM Recommendation 31E/1, Appendix 2	HELCOM Recommendation 31E/1
13 [†]	California Proposition 65	OEHHA Proposition 65
14	Bisphenols: 4,4'-(propane-2,2-diyl)diphenol (Bisphenol A) CAS 80-05-7, 4,4'-sulfonyldiphenol (Bisphenol S) CAS 80-09-1 or 2,2-Bis(4-hydroxyphenyl)butane (Bisphenol B) CAS 77-40-7	
15*	Phthalates (DEHP, DBP, BBP, DINP, DIDP, DnOP): EC 552/2009 (items 51&52) amending Annex XVII of REACH Regulation EC 1907/2006. Phthalates on toys and childcare products and US Consumer Product Safety Improvement Act, Section 108	EC 552/2009 amendment to EC 1907/2006: Phthalates on toys and childcare products US Consumer Product Safety Improvement Act Section 108
16* [†]	Priority Substances in the field of water policy: EU Directive 2013/39/EC, Finnish National regulations Chapter D and 40 CFR Part 423 Appendix A Water priority chemicals	Directive 2013/39/EC National Regulation Ch D 40 CFR Part 432 App A
*= Legal requirement applying on pulp, paper or plywood production in EU countries. † = Changes in regulation		

*= Except formaldehyde (CAS 50-00-0), phenol (CAS 108-95-2) and resorcinol (108-46-3) that are used in glue resins.

Contact Information
e-mail: plywood@upm.com
Tel.: +358 204 15 113
www.wisaplywood.com

9/9/2011