



# CERTIFIKAT

No. SC0442-09

## Composite wood products

### Holder/Issued to/Manufacturer

Vyatsky Plywood Mill Ltd, Novovyatsk district, 1, Kommun str, Kirov,  
610013 Russian Federation

### Manufacturing plant

See above

### Products and CARB emission standard

Product type: Birch Plywood 4-30 mm - Phase 2

Intended use: Hardwood Plywood Wall Panelling and Industrial Hardwood Plywood Panels.

### Certificate

The products described above fulfil the requirements in respect of formaldehyde emissions according to the requirements set out in the California Air Resources Board Regulation: § 93120 Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products.

### Marking

Each product or bundle covered by this certificate and complying with the requirements may be marked with a label or similar. The label shall contain the information specified in the regulation § 93120, and shall also include SPs, by ARB assigned, number as a third party certifier: TPC-13

In addition, the manufacturer shall include, on the bill of lading or invoice, the approval number above and a statement that the product complies with the applicable phase 1 or 2 emission standard specified in section 93.120(a).

### Validity

This certificate is valid until not later than 30<sup>th</sup> June 2014.

### Miscellaneous

The manufacturer's own inspection procedures including small scale testing are under surveillance by SP. This is the first issue of this certificate.

Borås, 26<sup>th</sup> June 2009

### SP Technical Research Institute of Sweden Certification

Lennart Aronsson  
Product Certification Manager

Anders Lorén  
Certification Officer

#### SP Technical Research Institute of Sweden

Postal address	Phone / Fax	Reg. number	E-mail / Internet
SP, Box 857	+46 10 516 50 00	556464-6874	info@sp.se
SE-501 15 Borås	+46 33 13 55 02		www.sp.se
SWEDEN			

This certificate may not be reproduced other than in full,  
except with the prior written approval by SP.



# PRODUCT CERTIFICATE

Certificate VTT-C-4307-21-09

## **Vyatsky Plywood Mill Ltd**

manufactures

### **BIRCH PLYWOOD**

VTT has assessed the birch plywood products manufactured by Vyatsky Plywood Mill Ltd located in Kirov in Russia. The assessment is based on an inspection of the product, production process and factory production control as well as on testing of the product.

As a result of this assessment VTT confirms that the birch plywood conforms to the compliance criteria on release of formaldehyde given in table 2.1.B-Alternative 1 of the IKEA specification IOS-MAT-0003, version number AA-10899-6, dated 2008-03-10. The restrictions to the validity of this certificate are:

- that VTT inspects the factory production control according to EN 13986
- that the VTT inspections are carried out at least every 6 month.
- that VTT carries out release of formaldehyde tests at least every 6 month.

This certificate is valid until 17 July 2011 on condition that the production methods are not changed to a substantial extent and the manufacturer and VTT have a valid quality control contract. Inquiries concerning the validity of the certificate may be addressed to VTT. Other conditions are listed on the reverse side of the certificate.

Espoo 17 July 2009

Liisa Rautiainen  
Assessment Manager

Mikael Fonselius  
Lead Assessor, Senior Research Scientist

**VTT TECHNICAL RESEARCH CENTRE OF FINLAND**

P.O. Box 1000 (Lämpömiehenkuja 2, Espoo),  
FI-02044 VTT, Finland  
Tel. +358 20 722 111

---

# PRODUCT CERTIFICATE

---

VTT-C-4307-21-09

Where reference is made in this certificate to any regulations, publications, standards or other documents, it shall be construed as a reference to such publication in the form of which it is in force at the date of this certificate.

The manufacturer is responsible for the quality and continuous quality control of the product. In granting this certificate, VTT does not accept responsibility to any person or body for any loss or damage incurred in respect of personal injury arising as direct or indirect result of the use of this product.

The use of VTT's name in advertising or the distribution of a partly copied certificate is allowed only with permission from VTT in writing.



VTT TECHNICAL RESEARCH CENTRE OF FINLAND  
P.O. Box 1000, FI-02044 VTT, Finland

## CERTIFICATE OF FACTORY PRODUCTION CONTROL

**0809 - CPD - 0635**

In compliance with the Directive 89/106/EEC of the Council of European Communities of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to the construction products (Construction Products Directive - CPD), amended by the Directive 93/68/EEC of the Council of European Communities of 22 July 1993, it has been stated that the construction products

### **Birch structural plywood**

manufactured from thin veneers  
of birch as unfaced (EN636-2) or faced (EN636-3)

placed on the market by

**Vyatsky Plywood Mill Ltd**

Novovyatsk district  
1, Kommuny Str  
RU-610013 Kirov RUSSIA

and produced in the

**Vyatsky Plywood mill**

are submitted by the manufacturer to the initial type-testing of the products, to a factory production control and to the further testing of samples taken at the factory in accordance with a prescribed test plan and that the notified body VTT has performed the initial inspection of the factory and the factory production control and performs the continuous surveillance, assessment and approval of the factory production control.

This certificate attests that all provisions concerning the attestation of factory production control described in Annex ZA of the standard

**EN 13986:2004**

were applied.

This certificate was first issued on 24 June 2009 and remains valid as long as the conditions laid down in the harmonised technical specification in reference or the manufacturing conditions in the factory or the FPC itself are not modified significantly.

Espoo, 24 June 2009

  
Liisa Rautiainen  
Assessment Manager



  
Mikael Fonselius  
Lead Assessor, Senior Research Scientist



# REPORT

issued by an Accredited Testing Laboratory



Date  
2009-07-03

Reference  
KMo P902888-02B

Page  
1 (2)

Handled by, department  
Ulrika Johansson  
Chemistry and Materials Technology  
+46 10 516 53 22, ulrika.johansson@sp.se

Appendix 1

## Formaldehyde emission - Initial audit sample

### Commission

Verifying Primary Method Tests according to ATCM; title 17, California Code of Regulations, sections 93120-93120.12.

### Test object

One sample of plywood board; 2 sheets, 1250 x 2050 mm, packed in plastic foil was delivered to SP.

Sample Marking:

**Revisionsprov, 21mm, 090504**

The sample was picked out by Mr Rauno Pyykkö, SP during an inspection visit on June 6 to Vyatskiy Plywood mill. The sample arrived at SP on June 8, 2009.

### Methods

The determination of formaldehyde emission was carried out according to ASTM E 1333-96 (2002) (Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Using a Large Chamber).

Two specimens were cut out from the sample. The specimens were conditioned for seven days at  $24 \pm 3$  °C and  $50 \pm 5$  % RH during June 18 – 25, 2009.

Chamber conditions:

Chamber volume, V:	22 m <sup>3</sup>
Temperature:	25 ± 1.0 °C
Relative humidity:	50 ± 4 % RH
Air change rate/loading ratio, N/L:	1.17 m/h
Loading ratio, L:	0.43 m <sup>2</sup> /m <sup>3</sup>
Air change rate, N:	0.5 h <sup>-1</sup>
Exposed area, A:	9.46 m <sup>2</sup>

The sampling of formaldehyde was carried out after 16-20 hours with DNPH samplers. Sampled volumes was 94 litres. The determination was according to ISO 16000-3, which means analysis on a liquid chromatograph with absorbance detector. Measurement uncertainty is estimated to 30 % (rel). Quantification limit is estimated to 0.10µg/DNPH sampler.

### SP Technical Research Institute of Sweden

Postal address:  
SP  
Box 857  
SE-501 15 Borås  
SWEDEN

Office location:  
Västeråsen  
Brinellgatan 4  
SE-504 62 Borås  
SWEDEN

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

Laboratories are accredited by the Swedish Board for Accreditation and Conformity Assessment (SWEDAC) under the terms of Swedish legislation. This report may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.



### Results

The results of the determination of formaldehyde emission from reference chamber:

Sample	Formaldehyde (ppm)		Formaldehyde mean value (ppm)
Revisionsprov 21 mm, 090504	0.0096	0.013	0.011

Background of formaldehyde in the conditioning room was 0.005 ppm. Background of formaldehyde in the empty chamber was 0.001 ppm and is subtracted.

SP Technical Research Institute of Sweden  
Chemistry and Materials Technology - Organic Analytical Chemistry

  
Anders Lorén  
Technical Manager

  
Ulrika Johansson  
Technical Officer