

CLASSIFICATION TABLE FOR BURNBLOCK TREATED WOOD

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Burnblock® fire-retardant (FR) treated wood mounted as a closed system and essentially flat cladding profiles

Burnblock FR treated solid wood panelling and cladding

Reaction to fire class performance EN 13501-1

Classification is in accordance with EN 13501-1. Tests are in accordance with EN13823. Protocol of GNB-CPR from group of Notified Bodies has been applied.

Wood species	Density kg/m ³	FR treated wood		with coating:	SW	MA	SI	RE
		Thickness mm	Reaction to fire class	Thickness mm	Reaction to fire class			
Accoya	400-600	19*****	B-s1,d0*					
Ash	650-850	15-50	B-s1,d0	19-42		B-s1,d0		B-s2,d0
Ayous	330-530	15-50	B-s1,d0	19-42		B-s1,d0		B-s2,d0
Bamboo**	600-700	26*****	B-s1,d0*					
Douglas Fir	480-580	15-50	B-s1,d0	19-42		B-s1,d0		B-s2,d0
Fraké	430-730	15-50	B-s1,d0	19-42		B-s1,d0		B-s2,d0
Larch	550-630	15-50	B-s1,d0	19-42		B-s1,d0		B-s2,d0
Oak****	500-750	20*****	B-s1,d0*					
Pine	380-540	15-50	B-s1,d0	19-42		B-s1,d0		B-s2,d0
Sapele	325-690	15*****	B-s1,d0*					
Spruce***	350-540	15-50	B-s1,d0	19-42		B-s1,d0		B-s2,d0
Thermo Ash	590-680	15-50	B-s1,d0	19-42	B-s2,d0	B-s1,d0		B-s2,d0
Thermo Ayous	270-375	15-50	B-s1,d0	19-42	B-s2,d0	B-s1,d0		B-s2,d0
Thermo D-Pine	360-550	15-50	B-s1,d0	19-42	B-s2,d0	B-s1,d0		B-s2,d0
Thermo Frake	410-730	15-50	B-s1,d0	19-42	B-s2,d0	B-s1,d0		B-s2,d0
Thermo Poplar	330-500	15-50	B-s2,d0	19-42	B-s2,d0	B-s2,d0		B-s2,d0
Thermo Spruce	380-580	15-50	B-s1,d0	19-42	B-s2,d0	B-s1,d0		B-s2,d0
Thermo Tulipwood	400-500	15-50	B-s1,d0	19-42	B-s2,d0	B-s1,d0		B-s2,d0
Western Red Cedar	316-494	15-50	B-s1,d0	19-42		B-s1,d0		B-s2,d0
Western Red Cedar****	350-450	12,5	B-s2,d0*					

SW = Sherwin Williams. MA = Pre-gray Masquelack. SI = Sioo:X. RE = Remmers. See details on page 3.

Above is valid with a ventilated or non-ventilated air gap between product and substrate or with no air gap. Coated solution recommended with ventilated air gap. Above is valid with standard and fire-cement flat sheet substrate, see details on page 3.

Remarks:

* Valid with standard substrate only.

** The single test indicates a classification of B-s1,d0 according to EN 13501-1.

*** Resistance to fire class: K₁, K₂, 10 / B-s1,d0 according to EN14135:2004.

**** With no air gap.

***** If above thickness stated, reaction to fire class B-s2,d0

We are constantly expanding our certifications.
Please contact us for specific requests.

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Fire test of façade according to SP Fire 105

The facade cladding has been fire tested in accordance with SP Fire 105, issue 5, dated 1994-09 and is assessed to satisfy the requirement for external walls in buildings of class Br1.

Wood species	Density kg/m ³	FR treated wood	
		Min. thickness mm	Fire test
Spruce	350-600	21	SP 105

Burnblock FR treated wood-based panells for use in construction

Reaction to fire class performance EN13501-2

Classification is in accordance with EN 13501-1. Tests are in accordance with EN13823. Protocol of GNB-CPR from group of Notified Bodies has been applied.

Wood species	Density kg/m ³	FR treated plywood		with Burnblock two-component lacquer	
		Min. thickness mm	Reaction to fire class	Min. thickness mm	Reaction to fire class
Birch Plywood*	650-750	12	B-s1,d0		
Birch Plywood	650-750	6	C-s1,d0		
Pine Plywood*	450-600	12	B-s1,d0	12	B-s1,d0
Poplar Plywood**	530-580	45	B-s1,d0		
LVL***	550-600	27	B-s1,d0		

Above is valid with a ventilated or non-ventilated air gap between product and substrate or with no air gap. Above is valid with standard substrate. See details on substrate and coating on page 3.

Remarks:

* Resistance to fire class: K₁, K₂, 10/B-s1,d0 according to EN14135:2004.

** The single test indicates a classification of B-s1,d0 according to EN 13501-1.

*** LVL - Laminated Veneer Lumber, with no air gap.

EN45545-2:2013 fire behavior of materials and products used in trains

Wood species	Density kg/m ³	FR treated plywood	
		Min. thickness mm	Fire resistance class
Birch Plywood	700-750	12	R10; HL1/HL2/HL3 (flooring)
Birch Plywood	700-750	12	R1; HL1/HL2 (walls)
Birch Plywood	700-750	12	R7; HL1/HL2 (exterior walls)

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Substrates

Standard substrate

Standard substrate used in tests are any substrates of classes A1 and A2-s1,d0 of at least 12 mm thickness and with a density equal to or greater than 525 kg/m³.

Fibre-cement flat sheet substrate

Fibre-cement flat sheet substrate A2-s1,d0 (Swisspearl or a similar product) alternative. Substrate density equal to or greater than 1300 kg/m³. Substrate thickness at least 4.5 mm. See available wood species above.

Surface coating on Burnblock FR treated wood

Burnblock two-component lacquer for inside use

The Burnblock® lacquer is a finishing for Burnblock® treated materials. Fully certified fire-retardant treatment is only possible when using the LW-121/45/BB lacquer in connection with Burnblock® treated wood (non-contributing to the development of fire).

Min thickness: 12 mm. Reaction to fire class B-s1,d0. Only available for pine plywood, see above.

PAINT: Remmers - Partner owned solution

Remmers Induline DW-618 and LW-718 on Burnblock® B-s1,d0 certified wood. Remmers owns this documentation. Please contact Remmers to be advised on an industrial partner, who has this solution CE certified. https://en.remmers.com/en_IN

Thickness: 19-42 mm. Reaction to fire class B-s2,d0. See available wood species above.

PAINT: Sherwin Williams

Sherwin Williams SX1420 + EG1570 on Burnblock® B-s1,d0 certified wood.

Thickness: 19-42 mm. Reaction to fire class B-s1,d0 or B-s2,d0, depending on wood species. See above.

PAINT: Sioo:X - Partner owned solution

Sioo:X Wood Protector + Sioo:X Surface Protector on Burnblock® B-s1,d0 certified wood. Sioo:X owns this documentation. Please contact SiooX to be advised on an industrial partner, who has this solution CE certified. www.sioox.com

Thickness: 19-42 mm. Reaction to fire class B-s1,d0, except Thermo Poplar B-s2,d0. See available wood species above.

Pre-grey Masquelack

Cosy Vintage Masquelack on Burnblock® B-s1,d0 certified wood.

Thickness: 19-42 mm. Reaction to fire class B-s1,d0 or B-s2,d0, depending on wood species. See above.

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Certification and test

Burnblock collaborates with many test institutes and organizations on the testing of materials treated with Burnblock to ensure documentation from independent 3rd party institutes.

The protocol on fire testing and classification of GNB-CPR position paper NB-CPR/SH02/19/832r2 (issued 14 January 2020), from the Group of Notified Bodies for the Construction Products Regulation, has been applied in the process of testing.

The classification assigned to Burnblock treated wood is in accordance with EN 13501-1:2018 and EN 13501-1:2020. Tests are performed in accordance with EN 13823 Reaction to fire tests for building products (SBI) and in accordance with EN 14135:2004 Resistance to fire tests for building products.

AIDIMME, Instituto Tecnológico	Luleå University of Technology	Tretekensk, NTI, Norwegian Institute of Wood Technology
BANGOR UNIVERTISTY	MeKA, Fire Safety	WARRINGTONFIRE Inspection & Certification
BRE UK, Building science center	MPA Eberswalde Materialprüfanstalt Brandenburg	Western Fire Center Inc, WFCi, USA
Control Union Finotrol, Finland	RISE, Research Institutes of Sweden	Woodbe, Sweden
DBI, Fire and Security	Southwest Research Institute, SwRI, USA	WPA, Wood Protection Association, UK
EUROFINS, Testing service	TEKNOLOGISK INSTITUT Danish Technological Institute	ZAG, Slovenian National Building and Civil Engineering Institute
ITB, Building Research Institute Poland		
LJUBLJANA UNIVERTISTY		

This classification table for Burnblock treated wood shows Burnblock's large offering of documentation. Burnblock pressure impregnation partners are CE-certified according to this documentation, in compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9th March 2011 (the Construction Products Regulation or CPR).

C2C Certified Material Health Certificate and EPD

All Burnblock fire-retardant powders have received C2C Certified Material Health Certificate™ at the Gold level. C2C Certified Material Health Certificate™ is a trademark of the Cradle to Cradle Products Innovation Institute. The environmental impact of all Burnblock fire-retardant powders is documented in the EPD, Environmental Product Declaration S-P-09149 by EPD International AB.

Do you need further information or support with your project, please contact Burnblock:

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Partner owned documentation for Burnblock treated wood

In addition to Burnblock large, documented, offering of Burnblock fire-retardant (FR) treated wood, Burnblock supports our partners with specific documentation. This includes among others wood ribbons and other flat or non-flat solid wood products (open and closed lamella systems), interior acoustics solutions, specific cladding systems and “Fit for purpose” projects. See examples below. Reach out to our partners for more information on this.

Burnblock FR treated solid wood panelling and cladding

Fire test of façade according to SP Fire 105

		FR treated wood		
Wood species	Density kg/m ³	Min. thickness mm	Fire test	More information
Thermo Pine	360-550	21	SP 105	Bitus www.bitus.com
Oak	500-750	23	SP 105	

		FR treated wood		
Wood species	Density kg/m ³	Min. thickness mm	Fire test	More information
Thermo Pine	360-550	20	SP 105	Protræ A/S www.protrae.dk

Burnblock FR treated wood-based panels for use in construction

Reaction to fire class performance EN13501-1

		FR treated wood		
Wood species	Density kg/m ³	Min. thickness mm	Reaction to fire class	More information
Eucalyptus Plywood*	540-610	5.5	B-s1,d0	WJ FireWright www.firewright.co.uk
Eucalyptus Plywood	540-610	9	B-s1,d0	
Beech face Eucalyptus Plywood	430-590	9	B-s1,d0	

* With no air gap

		FR treated wood		
Wood species	Density kg/m ³	Min. thickness mm	Reaction to fire class	More information
Eucalyptus Plywood	400-600	9	B-s2,d0	Halt www.haltnfr.com
Eucalyptus Plywood	400-600	12-18	B-s1,d0	
Poplar Plywood	400-500	12-18	B-s1,d0	
Walnut face Poplar Plywood	400-500	12-18	B-s1,d0	

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