

## Technical Data Sheet

### Product: OSB Firestop

### Oriented strand boards with fire retardant surface treatment, type OSB/3



#### 1. Product information

Core board is OSB/3. OSB/3 is multi-layer boards of flat chips (strands) of specified shape and thickness. The surface layer strands are oriented parallel to the board length. The core layer particles are oriented randomly or perpendicular to the surface layer strands. Dry strands treated by synthetic resin and paraffin are flat- presses by high temperature and pressure.

Raw OSB board is treated by patented fire-resistant Pyrotite coat on one or both sides. The non-flammable and non-toxic Pyrotite® coat consists of a layer of fibreglass - reinforcing mat and magnesium oxide (MgO) cement tightly bonded to the OSB Surface in thickness min.1 mm.

OSB Firestop boards are characterized according to standard EN 300 as load-bearing boards for use in humid conditions<sup>1)</sup> or for special surface treatment.

OSB Firestop boards are intended for the design and implementation of load-bearing and stiffening building elements, e.g. wall, floor and roof structures<sup>2)</sup>.

#### Manufacturer identification:

Kronospan OSB, spol. s r.o.  
 Na Hranici 2361/6  
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 Business ID 26 93 63 64

#### Product information:

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#### 2. Technical production specifications

Production tolerances of OSB 3 boards acc. EN 300			
Properties		Test Method	Requirement
Tolerance on nominal dimensions	Thickness (sanded board)	EN 324-1	± 0,3 mm
	Thickness (unsanded board)		± 0,8 mm
	Length and width		± 3 mm
Edge straightness tolerance <sup>3)</sup>		EN 324-2	1,5 mm/m
Squareness tolerance <sup>3)</sup>			2 mm/m
Moisture content		EN 322	2 - 12 %
Tolerance of the mean density within the board <sup>3)</sup>		EN 323	± 15 %
Formaldehyde release – Perforator value		EN ISO 12460-5	Class E1 ≤ 8 mg/100 g
Formaldehyde release – steady state emission value		EN 717-1	< 0,03 ppm

<sup>1)</sup> Humid conditions is defined as service class 2 of EN 1995-1-1 which is characterised by a moisture content in the material corresponding to a temperature of 20°C and a relative humidity of the surrounding air only exceeding 85% for a few weeks per year.

<sup>2)</sup> See EN 1995-1-1 and/or other performance standards for designing of timber structures.

<sup>3)</sup> The values are valid for moisture content in the materials corresponding to a rel. humidity of 65 % and temperature 20 °C.

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Production specifications related to mechanical and swelling properties							
Properties		Test Method	Unit	Thickness (mm, nominal dimension)			
				8 to 10	> 10 to 18	> 18 to 25	> 25 to 30
Bending strength	Major axis	EN 310	N/mm <sup>2</sup>	22	20	18	16
	Minor axis			11	10	9	8
Modulus of elasticity in bending	Major axis	EN 310	N/mm <sup>2</sup>	3500	3500	3500	3500
	Minor axis			1400	1400	1400	1400
Internal Bond		EN 319	N/mm <sup>2</sup>	0,34	0,32	0,29	0,26
	After boil test <sup>4)</sup>	EN 321		0,15	0,13	0,12	0,06
	After cyclic test <sup>5)</sup>	EN 321		0,18	0,15	0,13	0,10
Bending strength after cyclic test – main axis <sup>5)</sup>		EN 1087-1	N/mm <sup>2</sup>	9	8	7	6
Swelling in thickness after 24 hours		EN 317	%	15	15	15	15

<sup>4)</sup> Option 1; <sup>5)</sup> Option 2; Manufacturer must follow one of these options.

The table values of strength are not characteristic values for use in the design of timber structures (e.g. according to EN 1995-1-1).

Specific Requirements on Pyrotite® coat surface		
Properties		Requirement
Tolerance on nominal dimensions	Thickness of Pyrotite® coat with glass fibres	min. 1 mm
	Termination of Pyrotite® coat with glass fibres at the OSB board edge	Straight edge + 0 / -5 mm Tongue / Groove + 0 / -2 mm
Pyrotite® surface flatness deviation (coat thickness, blistering, cracked bubbles etc.)		± 0,5 mm
Vertical step at T+G joint between panels after assembly measured at a relative humidity 65 ± 5% and temperature of 20 ± 2°C (only from Pyrotite® coat side)		max. 0,8 mm
Colour divergences of Pyrotite® coat surface		tolerable *

\* Colour divergences of surface unify the topcoat (e.g. interior acryl paint).

### 3. Mechanical-physical properties

Mechanical-physical and other properties needed for board use in construction are determined in Declaration of performance (DoP) no. Firestop-CPR-DoP-2015-01.

Technical properties of OSB 3 boards		
Property	Test method, directives	Value
Reaction to fire <sup>6)</sup>	EN 13501-1	Class B,s1-d0 (from side with MgO based coat) Class D,s1-d0 ( from untreated side)
Formaldehyde emissions	EN 16516	< 0,06 ppm <sup>7)</sup>
	EN 717-1	< 0,03 ppm <sup>7)</sup>
Volatile organic compounds emissions (VOC)	EN 16516, AgBB Schema 2018	Limits determined by MVV TB 2017/1, Annex 8 <sup>8)</sup>

<sup>6)</sup> Informative only. Exact definition is mentioned in Classification report KB-HOCH-130914-3.

<sup>7)</sup> Product meets the limits determined by the German Chemical Act ChemVerbotsV.

<sup>8)</sup> Product meets German requirements for building with regard to health protection (ABG).

### 4. Instruction for transport and storage

Transport

- Railway carriages intended for this type of transport (closed and secured against climatic influence). In the carriages there are movable obstruction and fixing device (courting) which protects the goods against the damage.

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- By road trucks. Canvas covers are used to protect the goods against climatic influence and fixing device (courting) are used to disable the movement and consequent damage of the goods inside the truck.

### Storage

Store the boards in a dry and ventilated area with optimum air humidity of 40 – 65% on a flat surface. The individual board packages must be interlaid, the bottom package should be placed minimum 10 cm above the floor.

## 5. Instruction for handling and installation

Detail instruction for correct storage, handling and installation are given in brochure Kronobuild.

Prior installation is essential the board conditioning. During installation pay attention to the correct orientation of the boards due different board strength properties in the longitudinal and transverse direction (major axis is in longitudinal direction).

## 6. Protective equipment

Protective means fitting to the processing method and technical equipment of the processing plant (protective goggles, respirators, gloves).

## 7. Disposal of waste generated during OSB processing

With regards to general obligations imposed by the Act No.185/2001 Coll. (Czech law), on waste, the priority is to search for the material reuse of the respective waste in case that it was not possible to prevent its generation. In this respect those types of waste can be regarded as waste which complies with the requirements stipulated by Kronospan CR spol. s r. o. Jihlava concerning input raw material.