



# tecbor boards

passive fire protection

## **KEY FEATURES**

- ▶ excellent fireproof performance
- Iow thickness of protection
- ▶ high thermal insulation
- easy and quick assembly
- ▶ free of substances hazardous to health
- ▶ wide range of applications
- ▶ antifungal, rodents and insects protection

#### DESCRIPTION

**Techor A and B** are magnesium based boards, A1 classified as per EN standard, designed to achieve fire protection up to El 240. Techor boards have been developed for a wide range of applications in today's demanding construction industry.



## CERTIFICATES

**Tecbor A and B** test certifications have been conducted in different European laboratories under the EN fire protection standards. Tecbor boards have obtained the CE mark with the certificate of compliance no. 1220-CPD-0901 and the European Technical Approval ETA 09/0057.

**Techor B** offers a wide range of solutions and is certified to cover all kind of tunnel applications.

**Techor B** 20 mm has been certified under the UL heating curve by Cidemco (Spain).

At the Efectis Laboratory in the Netherlands and in accordance with the 2008-Efectis-R0695 Document Specification, the Tecbor B tunnel boards have obtained the certificate for achieving the RWS 1350°C time-temperature curve for 120 and 180 minutes. Also the Hydrocarbon Modified Curve (HMC) for 120 and 180 minutes was achieved.



#### **APPLICATIONS**

- Steel and concrete structures protection
- ▶ Partitions (internal and wall linings)
- Suspended ceilings
- Curtain walls
- Ventilation ducts
- ► Tunnels

#### AVAILABLE DIMENSIONS

- ▶ 1220 x 2300 mm
- ▶ 1200 x 2300 mm
- ▶ 1200 x 2400 mm

(other sizes and tapered edges of boards upon request)



TECHNICAL CHARACTERISTICS AND SPECIFICATIONS								
SPECIFICATIONS	TECBOR A	TECBOR B	NORMATIVE					
Composition	Magnesium oxide, silicate & other additives	Magnesium oxide, silicate & other additives	-					
Fire performance	Non-combustible Euroclass A1	Non-combustible Euroclass A1	EN 13501-1:2002					
Dry density (40°C)	$700 \text{ kg/m}^3 \pm 10\%$	$650 \text{ kg/m}^3 \pm 10\%$	EN 12467					
Density (23°C and 50% HR)	730 kg/m <sup>3</sup> ± 10%	$680 \text{ kg/m}^3 \pm 10\%$	EN 12467					
Thermal conductivity	0.27 W/mk	0.19 W/mk	EN 12664					
Alkalinity pH	8 - 10	8 - 10	EN 13468					
Water absorption capacity	1.9 kg/m <sup>2</sup>	4.12 kg/m <sup>2</sup>	EN 1609					
Steam permeability	3.9 x 10 <sup>-9</sup> (Kg/m <sup>2</sup> sPa)	3 x 10 <sup>-9</sup> (Kg/m <sup>2</sup> sPa)	EN ISO 12572					
Lengthwise tolerance	± 5 mm	± 5 mm	EN 12467					
Widthwise tolerance	± 3 mm	± 3 mm	EN 12467					
Thermal expansion (20-100°C)	3.6 (1/°C)* 10E-5	3.1 (1/°C)* 10E-5	EN ISO 10.545-8/97					
Thickness margin	± 1 mm	+ 2 mm / -1 mm	EN 12467					
Edge straightness	Level I – 0.1%	Level I - 0,1%	EN 12467					
Organic matter content	4.55%	3.30%	103 204/93					
Resistance to water erosion	R <sub>L</sub> < 0.75	R <sub>L</sub> < 0.75	EN 12467					
Modulus of elasticity (MPa)	3018.7	2149.2	EN 12089; EN 310					
Flexural strength MOR (MPa)	7.2	3.58	EN- 12467					
Tensile strength perpendicular to fibre (MPa)	1.2	0.68	EN - 1607					
Tensile strength paralell to fibre (MPa)	1.59	0.81	EN 1608					
Compressive strength (MPa)	7.07	4.64	EN - 826					
Dimensional stability	≤ 0.25%	≤ 0.25%	EN 326-1					
Microbial proliferation	No	No	EN 13403					
Life	25 years Z <sub>2</sub>	25 years Z <sub>2</sub>	ETA 09/0057					

Some values quoted relate to internal testing across the size range. Individual test certificates are available upon request. We reserve the right to improve product performance at any time and without prior notice. Stricter board tolerances can be achieved to suit specific project requirements.

		LOGISTICS DETAILS							
		Tecbor A		Tecbor B					
	Board's length	10 mm	12 mm	15 mm	20 mm	30 mm	40 mm		
Weight per pallet	2300	40	35	35	30	20	15		
	2400	90	75	60	45	?	22		
Weight per pallet	2300	16	16	12	12	12	12		
	2400	6	6	6	6	6	6		

#### FINISHES

Thanks to the smooth finish in a light grey / white colour of the external side, Tecbor A and B finish can be left as a standalone or can be painted if required. Edges of boards can be squared or tapered.

# HEALTH AND SAFETY

**Techor A and B** boards do not contain hazardous substances for health, according to the database of the 041/051 DS European Commission. They do not produce toxic smoke or fumes under fire exposure.



Mercor is the largest producer and supplier of comprehensive passive fire protection systems in Poland. The Mercor capital group comprises Mercor SA (Poland, parent company), Mercor Ukraine and Mercor UA LLC (Ukraine), Mercor Fire Protection Systems S.R.L. (Romania), Mercor-Proof LLC (Russia), Mercor Czech Republic s.r.o. (Czech Republic), Mercor Slovakia s.r.o. (Slovakia) and Tecresa Protección Pasiva (Spain).

MERCOR OFFERS THE ASSORTMENT OF PRODUCTS FROM FOUR SEGMENTS OF PASSIVE FIRE PROTECTIONS MARKET:

- fireproofing systems for building structures and tunnels
- fire ventilation systems
- smoke and heat exhaust systems and rooflight systems

MERCOR IS ABLE TO OFFER ITS CLIENTS INTEGRATED SOLUTIONS ENSURING THOROUGH FIRE PROTECTION OF BUILDINGS AND INDUSTRIAL PLANTS. MERCOR TOGETHER WITH DESIGNERS AND CONTRACTORS CAN PROVIDE COMPREHENSIVE SERVICES BY OFFERING:

- assistance in the designing of fire protection systems,
- ready-made products and devices,
- delivery and assembly,
- maintenance

Most of products are customised: the client can define desired parameters of the purchased product, in compliance with safety standards and requirements based on regulations.



#### **MERCOR SA**

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