



COMPOSITION

TECBOR® B boards are magnesium based and have been developed for a wide range of applications in today's demanding construction industry. It has a class A1 fire resistance.

CERTIFICATES

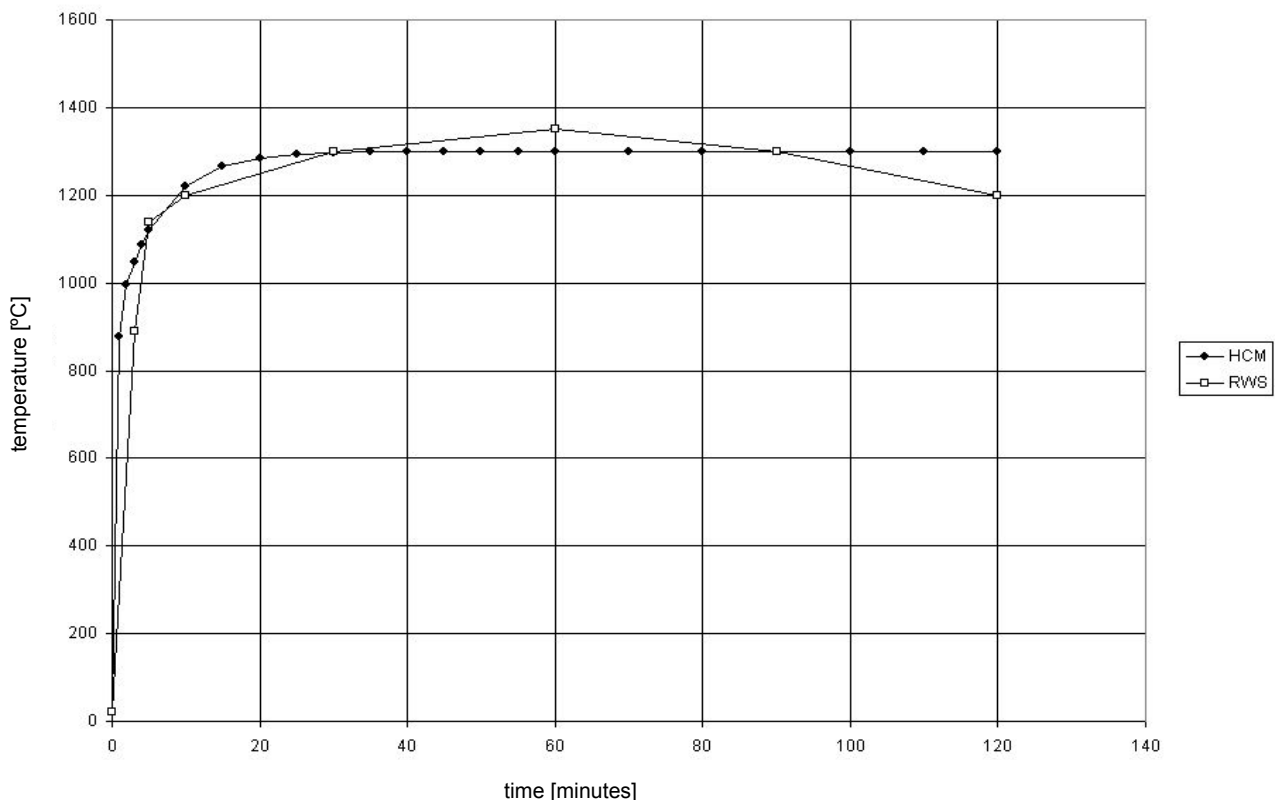
TECBOR® B test certifications have been completed in different European laboratories under the EN fire protection standards. It has obtained the CE mark with the certificate of compliance no. 1220-CPD-0901.

TECBOR® B offers a wide range of solutions and certifications to cover all kind of necessity within tunnel applications.

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

TECBOR® B 40mm has achieved the RWS 1350°C time- temperature curve certification for 120 and 180 minutes at the Efectis Laboratory in The Netherlands according to the 2008-Efectis-R0695 Document Specifications. As well as the Hydrocarbon Modified curve (HMC) for 120 and 180 minutes.

RWS and HMC Fire Curves





TECHNICAL DATA

Size & Thickness: TECBOR® B panels are available in two different thickness 20mm and 40mm.

Dimensions: 1200 x 2400mm and 1220 x 2300mm.

Combustibility: TECBOR® B does not produce toxic smoke or fumes under fire exposure and has been certified as A1 according to the EN 13501-1 normative.

Dry Density: TECBOR® B 20 mm, 650 kg/m³ ±10%.

Dry Density: TECBOR® B 40 mm for tunnels, 900 kg/m³ ±10%.

Thermal Conductivity: λ10,dry,90/90= 0.19 W/mK

Alkalinity: 9.6

Water Vapour Diffusion Resistance: μ=3-4

Typical Moisture Content Value: According to UNE-EN ISO 12570/00 is 7.6%

Bending Strength: Mean value of MOR = 3,58MPa

Perpendicular Tensile Strength: tested according to EN 1607 is 0,68 MPa

Parallel Tensile Strength: tested according to EN 1608 is 0,81MPa

Compressive Strength: 4,64 MPa

Water Absorption Value: According to UNE-EN 1609/96 after 24 hours immersion 3,14Kg/m²

Coefficient of Thermal Expansion: According to UNE-EN ISO 10.545-8/97 is 5,8x10-6 / °C

Thermal Shrinkage: According to UNE-EN 1094-6/99 is -1,3%

Melting Point: TECBOR® B is certified for RWS 1,350 °C test for 3 hours

Abrasion Test: According to ASTM C 501:84 (reapproved 2002) wear index average for TECBOR® B 40mm = 80±10

FINISHES

TECBOR® B has a very smooth finish to the external side in a light grey/white colour.

Although TECBOR® B is a product offering an excellent surface finish, is as well an adequate base for painting application if required.

INSTALLATION MANUAL

SAWING

The most suitable tool to be used is a circular saw with dust extraction. It is recommended that carbide tipped blades are used when cutting or processing in order to reduce tool wear. TECBOR® B can also be scored and snapped.

EDGING AND JOINTING

Corners are produced with a 90° angle and with square edges to all four sides.

TECBOR® B can be affected by slight dimensional changes according to variations in relative humidity and different construction adjustments. In order to allow these alterations it is necessary to create a 5 mm movement joints approximately every 10 meters depending on the area covered with the boards. All the other panels must be placed together, no joint is required.

MOUNTING & FIXING

TECBOR® B can be fixed using self tapping screws, self drilling screws and metallic anchors.

SCREWING

TECBOR® B can be screw fixed to various support systems including metal and timber framing, brickwork, blockwork and concrete structure, by powered methods.

FIXING DISTANCES

Fixing distances for all type of Tecbor® are 250 mm both for the horizontal and vertical support.

BONDING

TECBOR® B must be fixed with mechanical methods, no adhesives are suitable.

HYGIENE & SAFETY

Adequate protection items should be in use.

TECBOR® B board does not contain hazardous substances for health, according to the database of the 041/051 DS European Commission.

PRODUCT FORMAT, TRANSPORT & STORAGE

Boards are commercialized in secured edge-protected pallets, perfectly identified with a sticker indicating TECBOR® B type, production date, pallet no. and number of boards per pallet.

When moved manually, TECBOR® B should be in a vertical position. TECBOR® B boards must be stored in the original pallets as delivered from the factory, under cover, not exposed to rain and in a dry place.