

Product properties

PROMATECT® 100 comprises autoclaved calcium silicate spheres bound in a mineral matrix. This PROMAXON® technology – a synthetic hydrated calcium silicate in spherical form – provides excellent performance in most fire resistant applications.

All below properties are mean values given for information and guidance only. If certain properties are critical for a particular application, it is advisable to consult Promat. PROMATECT® 100 is manufactured under a quality management system certified in accordance with ISO 9001: 2008. The product has passed the site audit in accordance with the environmental standards of ISO 14001: 2004 and occupational health and safety requirements of OHSAS 18001: 2007.

Material properties

Generic description	PROMAXON® mineral board
Surface condition	Front face: smooth Back face: sanded
Building regulations	Class 0
Alkalinity	Approx. pH 9
Coefficient of expansion	-16 x 10 ⁻⁶ m/mk
Thickness tolerance	±0.5mm (standard thickness boards)
Dimension tolerance	±0-3mm (standard dimension boards)

Physical performance

Property	Test method	Test results
Density	BS EN 323	Nominal 850kg/m ³
Flexural strength, F_{rupture}	BS EN 310	Longitudinal 4.5N/mm ²
Tensile strength, T_{rupture}	BS 5669: Part 1	Longitudinal 1.02N/mm ² Transverse 0.98N/mm ²
Compressive strength	BS 5669: Part 1	5.99N/mm ²
Combustibility	BS 476: Part 4 AS 1530: Part 1 DIN 4102: Part 1	Non combustible
Surface burning	BS 476: Part 7 AS/NZ ISO 53837	Class 1 (cone calorimeter test group 1)
Simultaneous determination of ignitability, flame propagation, heat and smoke release	AS 1530: Part 3	Indices 0/0/0/0-1
Thermal conductivity	ASTM C518	Approx. 0.164W/mK at 20°C
Typical moisture content	BS EN 322	Average 12.72%

PROMATECT® 100 is off-white in colour. The front face is smooth and is suitable for any forms of architectural/finishing treatment; the reverse face is sanded.

PROMATECT® 100 is resistant to moist conditions and will not physically deteriorate in a humid environment. Whilst its performance characteristics are not degraded by moisture or ages, PROMATECT® 100 is not designed for application in areas subject to continual damp or high temperatures. The product is recommended for interior applications only.

Application

- Structural steel fire protection
- Steel/timber stud and solid/frameless partitions
- Self-supporting ceilings
- Timber floor and mezzanine floor protection
- Access hatches and fire doors

Health and safety

When machining the PROMATECT® 100 product, airborne dust may be released, which may be hazardous to health. Do not inhale the dust. Avoid contact with skin and eyes. Use dust extraction equipment. Respect regulatory occupational exposure limits for total inhalable and respirable dust. A health and safety data sheet is available from Promat and, as with any other material, should be read before working with the product.

PROMATECT® 100 product is not classified as a dangerous substance so no special provisions are required regarding the transportation and the disposal of the product to landfill. The product can be placed in on-site rubbish skips with other general building waste which should then be disposed by a registered contractor in the appropriate and approved manner.

Standard thickness	Standard dimension	Number of boards per pallet	Surface per pallet	Weight of boards per m ²	Weight per pallet
8mm	2500mm x 1200mm	50	150m ²	Approx. 7.1kg	Approx. 1140kg
10mm	2500mm x 1200mm	40	120m ²	Approx. 8.8kg	Approx. 1110kg
12mm	2500mm x 1200mm	30	90m ²	Approx. 10.6kg	Approx. 1020kg
15mm	2500mm x 1200mm	25	75m ²	Approx. 12.8kg	Approx. 1010kg
18mm	2500mm x 1200mm	20	60m ²	Approx. 15.3kg	Approx. 965kg
20mm	2500mm x 1200mm	20	60m ²	Approx. 17.0kg	Approx. 1070kg
25mm	2500mm x 1200mm	15	45m ²	Approx. 21.3kg	Approx. 1010kg