

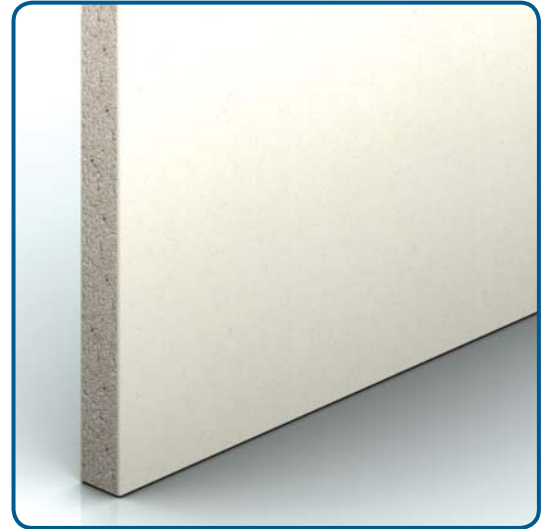
General Description

PROMATECT® 50 is Promat's matrix technology of binding organic materials and inorganic minerals within a calculated mineral matrix to form a monolithic core. Known as a Cement Bound Matrix board, this low energy environmentally friendly manufacturing process makes excellent boards that offer not only superior fire resistance but also exemplary physical strength, robustness and performance.

PROMATECT® 50 is off-white in colour. One face is extremely smooth and ready to form a finished surface able to receive almost any form of architectural/finish treatment. The reverse face has a (visible) fibre mesh reinforcement.

PROMATECT® 50 is resistant to the effects of moisture and will not physically deteriorate when used in damp or humid conditions. Performance characteristics are not degraded by moisture. A fully saturated, standard PROMATECT® 50 board retains up to 95% of its physical strength.

A health and safety data sheet is available from Promat and, as with any other material, should be read before working with the board. The board is not classified as a dangerous substance so no special provisions are required regarding the transportation and the disposal of the product to landfill. They 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.



Typical Mechanical Properties

| | | |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------|
| Flexural strength, $F_{rupture}$ (EN 12467: 2000) | Longitudinal N/mm ² Transverse N/mm ² | 13.76 10.80 |
| Tensile strength, $T_{rupture}$ (EN 12467: 2000) | N/mm ² | 4.2 |
| Compressive strength (average, perpendicular on board face) (BS 5669: Part 1: 1989) | N/mm ² | 13.10 |

Applications

- Steel and timber stud partitions, solid/frameless partitions
- Self-supporting ceilings, suspended ceilings
- Membrane ceilings, timber floor protection
- Cladding to steel ducts
- M&E services enclosure, riser pipes enclosure

Annotation and/or video of the applications is available in digital format. For system details, please refer to <http://www.promat-ap.com>. For general information of cutting, fixing, fabrication, flush jointing and finishing of these systems, please refer to pages 37 to 43 of the 2012 edition handbook.

General Technical Properties

| | |
|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Product generic description | Promat ^X ® technology Cement Bound Matrix board |
| Material class (BS 476: Part 4: 1970) | Non combustible |
| Surface spread of flame (BS 476: Part 7: 1997) | Class 1 |
| Surface spread of flame for bare floors (AS ISO 9239: Part 1: 2003) | No ignition |
| Building regulations classification | Class 0 |
| Heat and smoke release rates (AS/NZS 3837) | Group 1 |
| Fire propagation of product (BS 476: Part 6: 1989) | $l = 0; i_1 = 0; i_2 = 0; i_3 = 0$ |
| Simultaneous determination of ignitability, flame propagation, heat and smoke release (AS 1530: Part 3: 1999) | Indices 0/0/0/0-1 |
| Density | kg/m ³ Nominal 1100 |
| Thermal conductivity (approximate) at 20°C (ASTM C518: 1991) | W/m ² K 0.193 |
| Typical moisture content, ambient to dry condition (BS 5669: Part 1: 1989, Clause 9) | 2.4% |
| Emission test (ASTM D5116-90 for Green Label Singapore) | Within limits set out by the Singapore Environment Council |
| Thickness tolerance of standard boards | mm ± 0.5 |
| Length x Width tolerance of standard boards | mm ± 5 |
| Surface condition | Front face: smooth, fair Back face: smooth with fibre mesh reinforcement |

| Thickness (mm) | Standard dimensions (mm x mm) | Number of boards per pallet | Surface per pallet (m ² /pallet) | Weight per m ² of sheet (approximate kg/m ²) | Weight per pallet (approximate kg) |
|----------------|-------------------------------|-----------------------------|---------------------------------------------|---------------------------------------------------------------------|------------------------------------|
| 7 | 2440 x 1220 | 78 | 232 | 8.4 | 1849 |
| 9 | 2440 x 1220 | 60 | 178 | 10.8 | 1922 |
| 12 | 2440 x 1220 | 45 | 134 | 14.4 | 1929 |
| 15 | 2440 x 1220 | 36 | 107 | 18.0 | 1926 |
| 18 | 2440 x 1220 | 30 | 89 | 21.6 | 1922 |
| 20 | 2440 x 1220 | 27 | 80 | 24.0 | 1820 |
| 25 | 2440 x 1220 | 21 | 63 | 30.0 | 1890 |

*Other dimensions are available upon request. The properties in above tables 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® 50 is manufactured under a quality management system certified in accordance with ISO 9001: 2008.

WHEN MACHINING THIS 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. FOR MORE INFORMATION PLEASE CHECK THE APPROPRIATE MATERIAL SAFETY DATA SHEET, AVAILABLE UPON REQUEST.