Promat

PROMATECT® 50

Fire Resistant E&M Services Enclosures

Promat

PROMATECT® 50
Cement Bound Matrix Board

P50

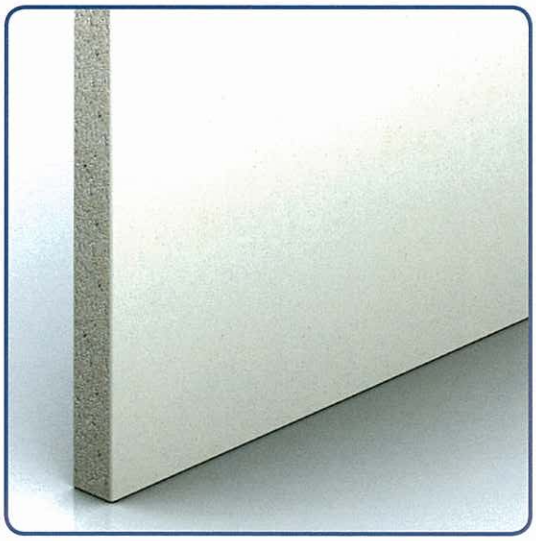
General Description

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 PromaX® technology Cement Bound Matrix board, this low energy environmentally friendly manufacturing process makes an excellent boards that offers 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 PROMATECT® 50 retains up to 95% of its physical strength.

A health and safety data sheet is available from the Promat Technical Department and, as with any other materials, 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/mm²	13.76
	Transverse N/mm²	10.80
Tensile strength, $T_{rupture}$ (EN 12467: 2000)	N/mm²	4.2
Compressive strength (average, perpendicular on board face) (BS 5669: Part 1: 1989)	N/mm²	13.10

Applications

- Steel stud partitions, solid/frameless partitions
- Self-supporting ceilings, suspended ceilings
- Timber floor protection, upgrading of timber floor
- Steel duct cladding
- M&E services enclosure
- Wet and dry riser pipes enclosures

General Technical Properties

Product generic description		PromaX® 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)		I = 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 (EN 12467: 2000)	kg/m³	1200 (± 10% tolerance)
Thermal conductivity (approximate) at 20°C (ASTM C518: 1991)	W/m°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 (m²/pallet)	Weight per m² of sheet (approximate kg/m²)	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 Technical Department.

PROMATECT® 50 is manufactured under a quality management system certified in accordance with ISO 9001: 2008.

AS FOR ALL NATURAL MATERIALS SUCH AS CONCRETE AND CLAY QUARTZ CAN BE PRESENT, THIS PRODUCT MAY ALSO RELEASE DUST CONTAINING QUARTZ PARTICLES WHEN IT IS MECHANICALLY MACHINED (CUTTING, SANDING, DRILLING). INHALATION OF HIGH CONCENTRATIONS OF DUST CAN IRRITATE THE RESPIRATORY SYSTEM. DUST CAN ALSO IRRITATE THE EYES AND/OR THE SKIN. THE INHALATION OF QUARTZ CONTAINING DUST, IN PARTICULAR HIGH CONCENTRATION OF FINE (RESPIRABLE) DUST OR OVER A PROLONGED PERIOD OF TIME CAN LEAD TO LUNG DISEASE (SILICOSIS) AND AN INCREASED RISK OF LUNG CANCER. AVOID THE INHALATION OF DUST BY USING MACHINERY WITH DUST EXTRACTION. GUARANTEE ADEQUATE VENTILATION ON THE WORK FLOOR. AVOID CONTACT WITH THE EYES AND SKIN AND AVOID INHALATION OF THE DUST BY WEARING APPROPRIATE PERSONAL PROTECTION GEAR (SAFETY GOGGLES, PROTECTIVE CLOTHING AND DUST MASK). FOR MORE INFORMATION PLEASE

PROMATECT® 50 Cement Bound Matrix Boards

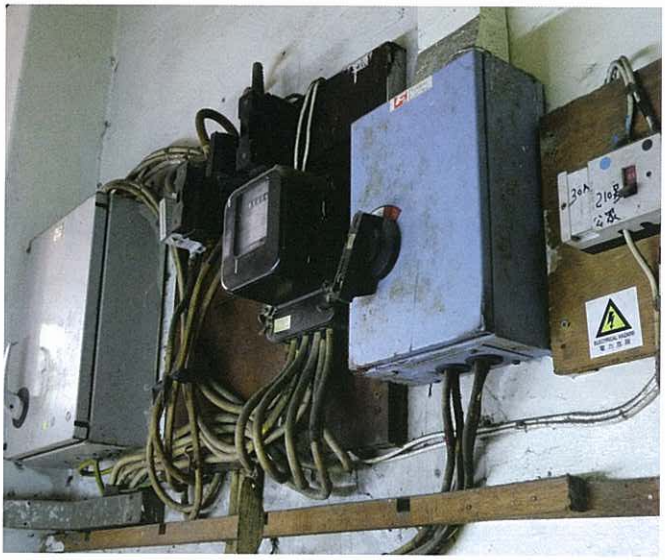
PROMATECT® 50 Cement Bound Matrix Boards are ideal protection for strategically important bulkheads, vertical sections and, particularly, E&M Services Enclosures.

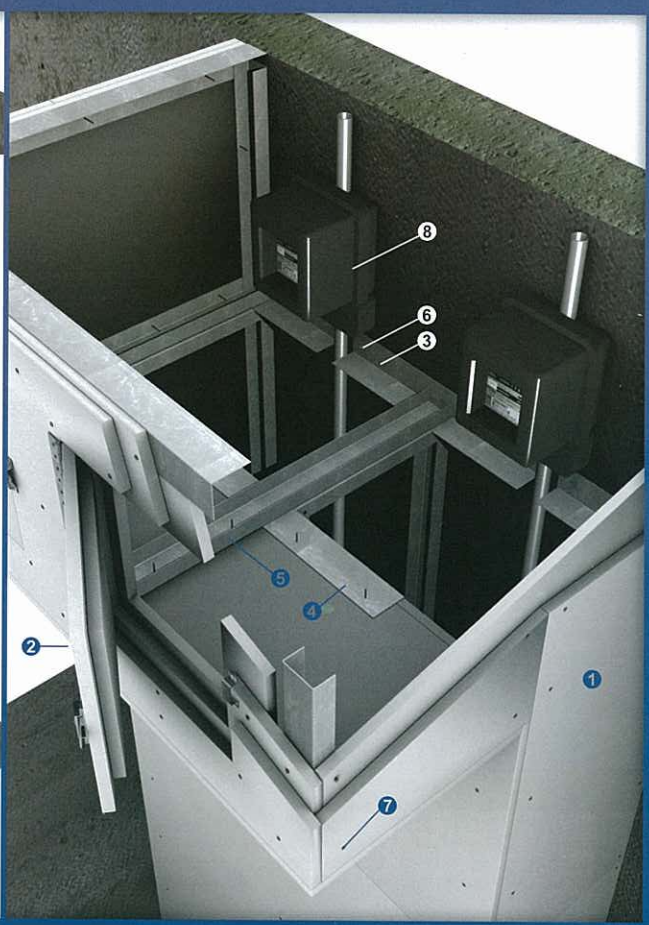
A 30mm layer of PROMATECT® 50, for example, provides 60 minutes integrity and insulation to British Standard 476: part 20-22.

Its light weight, robust durability and easy workability means that PROMATECT® 50 Cement Bound Matrix Boards can be delivered to and installed within the space constraints of most work sites.

PROMATECT® 50 in E&M and other enclosures can be hinged with no loss of performance, allowing frequent routine inspection of meters and cable works. These enclosures are tested systems and can be tailored to meet specific locations and fire performance requirements.

For complete information and further details of PROMATECT® 50 in specific bespoke design, please contact the Promat Technical Department.





Up to 60/60/- fire resistance in accordance with the requirements of BS 476: Part 20 to 22

1. 2 layers of PROMATECT® 50 board 15mm thick
2. 2 layers of PROMATECT® 50 board 15mm thick access panel, size 450mm x 350mm.
3. Steel angle, minimum 50mm x 50mm x 1mm
4. Steel angle, minimum 60mm x 30mm x 1mm
5. Steel channel, minimum 30mm x 50mm x 30mm x 1.2mm
6. M6 steel anchor bolts at nominal 500mm centres
7. M4 self tapping screws at nominal 200mm centres
8. E&M services