

PROMATECT 100

Product Information

PROMATECT 100 is a non-combustible matrix engineered mineral board, used for protection of structural steel and fire rated partitions.

1. Product composition

PROMATECT 100 sheets consist of the following:

- Portland cement
- Synthetic hydrated calcium silicate in spherical form
- Mineral fillers
- Functional additives

It does not contain inorganic fibres or formaldehyde.

2. Production method

PROMATECT 100 sheets are manufactured on a Hatschek machine and are autoclaved at high temperature and pressure. PROMATECT 100 is produced in Europe by the Etex Group, the most global manufacturer of fibre cement with production facilities in 40 different countries.

PROMATECT 100 is manufactured under a quality management system certified in accordance with ISO9001: 2000 Certification and in accordance with the environmental standards of ISO 14001.

3. Dimensions and tolerances

Standard thickness: 15 -20 mm

Length: 2500 mm

Width: 1200 mm

Tolerances

	After cutting
Thickness	+/- 0.5 mm
Length and width	+ 3.0 / - 0.0 mm
Squareness	1.0 mm / m

4. Weight

Thickness	Weight
15 mm	Approx 13.1 kg/m ²
20 mm	Approx 17.3 kg/m ²

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5. Colours

PROMATECT 100 is off-white in colour and is coloured through-out.

6. Technical properties (average values)

Density	: 850 kg/m ³
Bending strength ₃ (24h immersed in water)	: 4.5 N/mm ²
Thermal expansion coefficient	: 16*10 ⁻⁶ m/mK
Thermal conductivity coefficient	: 0.164 W/mK
Reaction to fire according to AS/NZS1530: Part1	: Incombustible
Reaction to fire according to BS476: Part4	: Incombustible
Surface spread of flame to AS/NZS 53837: 1998	: Cone calorimeter test group 1
Surface spread of flame to BS476: Part 7	: Class 1

7. Advantages

- Nice surface finish, easy to finish
- No flame spread, no fume development, no toxic gasses
- Resistant to high temperatures
- Resistant to the effects of humidity: PROMATECT 100 will not physically deteriorate when used in damp or humid conditions
- Resistant to fungus, bacteria, insects, vermin, etc.
- Resistant to many chemicals
- Environmentally friendly, no harmful gas emissions
- High dimensional stability
- One surface is semi-smooth and will accept a wide range of architectural finishes

8. Working guidelines

Cutting:

- Hand circular saw (with rail), slow rotation with tungsten carbide-tipped blade or fast rotation with diamond cutting blade without teeth. A diamond tipped blade can be used in either dry or wet state, but caution has to be taken that when cutting wet, a cement slurry is generated that has to be drained and sheet and tolls will have to be cleaned.
- Jigsaw with tungsten carbide-tipped tooth cutting blade
- Conventional woodworking equipment can be used but have in general wear faster.
- PBS Distributors operates a CNC waterjet cutting machine in Auckland that facilitates the cutting of intricate designs with minute tolerances. Please contact PBS Distributors for more information.

At all times, cutting should carried out in well ventilated spaces, using dust extraction. Operators should take precautions and wear protective and respiratory gear at all times.

Edge finish:

- Fine emery cloth or sanding block when the cut is rough.

Drilling:

- For holes: carbide-tipped twist drill (or completely in carbide) with a 60° or 80° nose angle
- For round apertures: cup drill or circular cutter, carbide-tipped
- The sheet should be supported around the hole to be drilled (e.g. by a wooden surface).
- Cutting and drilling must take place in a dry environment.

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Fixing accessories:

The material of the fixing accessories (e.g. stainless steel, galvanized steel, cadmium plated steel) is chosen dependent on the application and the environment.

1) Screwing in timber construction:

- Use drywall screws in accordance with the Promat data sheet for the specified application and performance.
- The PROMATECT 100 sheets need to be pre-drilled not less than 12 mm from the edge and at 50 mm and 100 mm from the edges at sheet corners (see detail).
- Do not overdrive the screws. The optimum is to have the screw head at 0.5 mm below the surface of the sheet.
- Variable-speed screw guns can be used with a maximum speed of 2,500 rpm and fitted with a depth gauge.
- Use the fixing patterns as specified by PBS Distributors Ltd.

2) Nailing in timber construction:

- Stainless steel clouts in accordance with the Promat data sheet for the specified application and performance.
- Distance to edge is min 12 mm and 50 mm and 100 mm from the edges at the sheet corners.
- Nails cannot be overdriven into the sheet. The optimum is to have the nail head flush with the sheet surface.

Caulking:

- Only use Promaseal Intumescent Mastic.

Health and safety aspects:

While the sheets are being processed, dust can be released which can irritate airways and eyes. It is recommended that a minimum P2 dust mask and safety goggles be worn. Appropriate dust extraction or proper ventilation should be used depending on the room in which the work is being carried out or the equipment being used. Long-term exposure to dust can be harmful to health.

9. Maintenance and cleaning

For minor soiling, washing with a mild household detergent or soft soap solution followed by rinsing with clear water. PROMATECT 100's surface is porous and cleaning requires rather chemical than mechanical ways to clean. No abrasive products or tools shall be used to clean the surface. Please consult the PBS cleaning instructions for more specific cleaning advice.

10. Handling

The sheets are packed on pallets. They must be kept dry during transport. The sheets must be horizontally stacked on a flat surface. The sheets must always be sufficiently supported so that they do not sag. The sheets must be stored in a dry ventilated space. If the sheets are stored outside, they must always be protected against rain by a tarpaulin or plastic sheet. If the sheets do become wet in the packing, all packaging must be removed and the sheets must be wiped dry and placed in a way that they can dry completely. A sheet must always be lifted from a stack by two people and then be carried on edge.

11. Guarantee

The guarantee and the guarantee conditions are available on request from PBS Distributors,