FIRE PROTECTION

Promat

The BUILDERS GUIDE to fire protection

Promat **SUPALUX®**
The High Performance Board

Promat **MASTERBOARD®**
The Versatile Board

Promat SUPALUX®

The High Performance Board

Promat SUPALUX® is a strong, lightweight, non-combustible building board, fully certified for constructions offering between 60 and 240 minutes fire resistance.

Promat SUPALUX® applications:

- Construction and upgrading of timber or panelled doors
- Fire protection to timber floors and mezzanine floors
- Wall, ceiling linings and suspended ceilings
- Ducting and structural steelwork casings
- Fire protection of thatched roofs
- Timber and steel frame partitions
- Single skin solid walls
- Fire rated soffits
- Boiler backing

Promat MASTERBOARD®

The Versatile Board

Promat MASTERBOARD® is a versatile Class 0 building board suitable for use in a wide range of both internal and semi-exposed applications. It is the only board to have a BBA certification and over 30 years of proven and tested fire protection performance.

Promat MASTERBOARD® provides up to 30 minutes fire protection, is resistant to the effects of moisture, will not physically deteriorate when used in damp or humid conditions and can withstand high temperatures and frequent temperature changes.

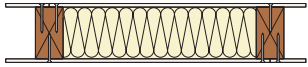
Promat MASTERBOARD® applications:

- Partitions
- Ceilings
- Swimming pool ceilings
- Wall and roof linings
- Soffit, porch or canopy linings
- Service duct and pipe covers
- Boiler and airing cupboard linings
- Door upgrades
- Tile backing
- Wet rooms

fire resisting constructions

PARTITIONS – INTERNAL WALLS

30 minutes fire resistance - timber frame



Framing: Nominal 63mm x 50mm timber studs at maximum 610mm centres. Noggings behind horizontal board joints.

Infill: Rock wool minimum 60mm thick x 23kg/m³.

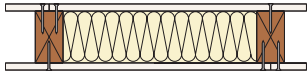
Facing: 6mm Promat MASTERBOARD® boards fixed to both sides with 38mm round head nails at nominal 300mm centres.

Max height: 4.0m

Overall thickness: 75mm

Estimated sound insulation (Rw): 39dB

60 minutes fire resistance - timber frame



Framing: Nominal 63mm x 50mm timber studs at maximum 610mm centres. Noggings behind horizontal board joints.

Infill: Rock wool minimum 60mm thick x 23kg/m³.

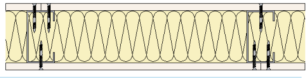
Facing: 9mm Promat SUPALUX® boards fixed to both sides with 50mm round head nails or M4 x 50mm screws at nominal 300mm centres.

Max height: 4.0m

Overall thickness: 81mm

Estimated sound insulation (Rw): 41dB

30 minutes fire resistance - steel frame



Framing: 48mm x 32/34mm x 0.5mm steel channel studs at maximum 610mm centres.

Infill: Rock wool minimum 60mm thick x 23kg/m³.

Joint Backing: 9mm Promat SUPALUX® coverstrips each side of horizontal board joints, fastened using M4 x 16mm self-tapping screws at nominal 300mm centres

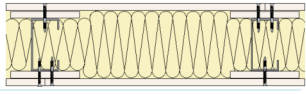
Facing: 9mm Promat SUPALUX® boards fixed to both sides with M4 x 25mm self-tapping screws. All fixings at nominal 300mm centres.

Max height: 4.15m

Overall thickness: 66mm

Estimated sound insulation (Rw): 43dB

60 minutes fire resistance - steel frame



Framing: 48mm x 32/34mm x 0.5mm steel channel studs at maximum 610mm centres.

Infill: Rock wool minimum 60mm thick x 23kg/m³ or 50mm thick x 40kg/m³

Joint backing: 6mm Promat SUPALUX® fillets 50mm wide on each side of studs and at horizontal board joints. Horizontal board joints fastned using M4 x 16mm long self-tapping screws at 300mm centres on both side of the joint.

Facing: 9mm Promat SUPALUX® boards fixed to both sides with M4 x 25mm self-tapping screws. All fixings at nominal 300mm centres.

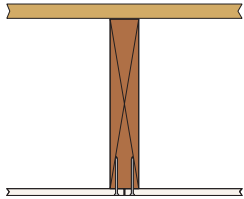
Max height: 4.15m

Overall thickness: 78mm

Estimated sound insulation (Rw): 44dB

CEILINGS – DIRECT PROTECTION TO TIMBER FLOORS

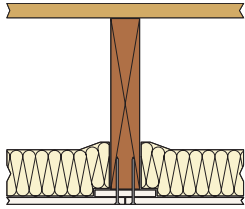
30 minutes fire resistance



Flooring:	T & G boarding, minimum 19mm thick.
Joists:	Timber, minimum 225 x 38mm thick at maximum 610mm centres.
Ceiling:	6mm Promat MASTERBOARD® fixed with 50mm clout nails at 200mm centres.

Estimated sound insulation (Rw): 34dB.

60 minutes fire resistance

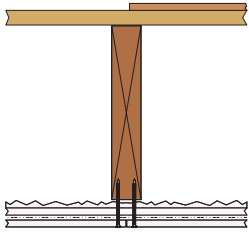


Flooring:	T & G or square-edged flooring, 19mm thick. Secure 4.8mm hardboard over square-edged floorboards.
Joists:	Timber, minimum 225 x 38mm thick at maximum 610mm centres.
Infill:	Rock wool minimum 30mm x 60kg/m^3 or 60mm x 23kg/m^3 between joists.
Backing strips:	9mm Promat SUPALUX®, 80mm wide strips under joists.
Ceiling:	9mm Promat SUPALUX® fixed with M4 x 63mm woodscrews at 300mm centres or 75mm nails (with heads) at 200mm centres

Estimated sound insulation (Rw): 41dB.

UPGRADING EXISTING CEILING FROM BELOW

60 minutes fire resistance



Flooring:	T & G or square-edged flooring, 22mm thick. Secure 4.8mm hardboard over square-edged floorboards
Joists:	Timber, minimum 225 x 50mm thick at maximum 610mm centres.
Existing ceiling:	Either 9.5mm gypsum wallboard or lath and plaster. If lath and plaster it is normal to be underline the existing ceiling with chicken mesh and timber battens before securing Promat SUPALUX®.
Ceiling:	12mm Promat SUPALUX® fixed with M4 woodscrews at 300mm centres to each joist, select screw length to provide at least 50mm penetration into the timber joist.

Estimated sound insulation (Rw): 41dB.

product selector

APPLICATION	Promat SUPALUX®	Promat MASTERBOARD®
Partitions	●	●
Linings	● incl. wall and ceilings	● incl. wall, porch, canopy and roof boiler and airing cupboard
Ceilings	● incl. suspended ceilings	● incl. swimming pool ceilings
Soffits	●	●
Services duct and pipe covers	●	●
Construction and upgrading of timber and panelled doors	●	●
Wet rooms, tile backer	●	●
Ducting and structural steel casings	●	
Timber and mezzanine floors	●	
Wind posts	●	
Thatched roofs	●	
Single skin solid wall	●	
Steel protection	●	

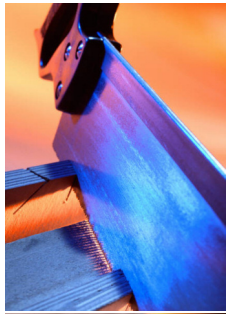
For further information visit **www.promat.co.uk** or call Promat's Technical Services Department on **01344 381400**

working, fixing & decorating

Working

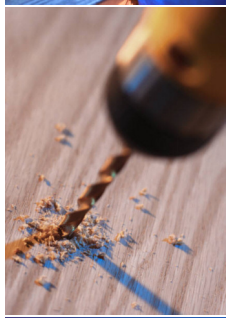
Cutting

Promat boards can be worked with conventional woodworking equipment although the use of hand saws with hardened teeth is recommended. Promat boards greater than 6mm in thickness may be more easily cut using a power circular saw in conjunction with tungsten carbide tipped blades, or a jigsaw. For rough cutting, 6mm sheets can be deeply scribed and broken over a straight edge. Promat recommend that all cutting should be carried out in well ventilated spaces, using dust extractors. Operators should wear protective face masks.



Drilling

Use normal low or high speed drills. Place scrap board under drilling location for a clean hole.



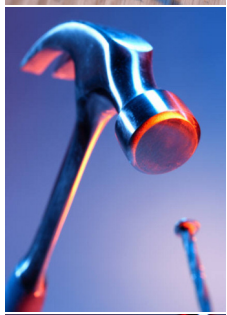
Smoothing and Sanding

Smooth cut edges with a surform, plane, rasp or file. Sand with conventional papers. Garnet paper is best for fine sanding.

Fixing

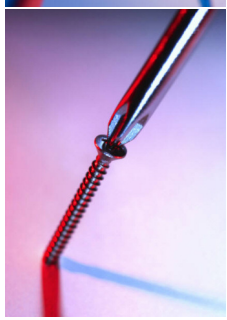
Nailing

The most economical method of fastening is to use pneumatic nailing and stapling equipment. Nails can be driven directly through boards, without pre-drilling, provided they are at least 12mm from the edge of the board, and the back face of the board is fully supported.



Screw Fixing

Pilot holes should be pre-drilled not less than 12mm from the edge of the boards and countersunk if required. Use self-drilling or self-tapping screws when securing boards to steel. For all other situations, drywall screws e.g. Hilo are generally suitable.



Butt Jointing

Boards can be simply butt jointed with sheets having square, bevelled or chamfered edges. If required, a filler may be used to finish joints before decoration. Adhesives are not required.

Finishing of Board Systems

Promat materials provide a surface ready to receive most forms of decoration. Where finishes such as wallpaper are to be used, application can be made easier by first sealing the board with a proprietary sealer or paint.

Plastering

All calcium silicate boards have a high suction and therefore it is generally difficult to apply gypsum plaster. If plastering is essential please consult the Promat Technical Services Department. It is recommended that a small test area is plastered initially to ensure that the boards have been adequately sealed. It is advisable that self-adhesive or hessian scrim is applied over joints and internal angles. Paper scrim is not recommended.

***Note**: The bonding agent and plaster manufacturers' recommendations for skimming onto high suction surfaces should be followed at all times.*

Tiling

Promat MASTERBOARD® can be tiled with ceramic, marble, granite and natural stone tiles (maximum tile weight 30kg/m^2).

The minimum board thickness to be used should be 9mm. The boards should be sealed on both faces with PVA or watered down tile adhesive and allowed to dry.

Vertical timber supports (minimum 50mm x 50mm) or steel studs should be installed at maximum 400mm centres and all board joints must be supported.

Fix the boards, preferably with back (textured) face outwards, to the supports at 200mm centres. The screws should be countersunk and corrosion resistant.

The tiles should then be fixed using standard tile adhesive.

Decorative Coatings

Decorative coating applied to the surface of Promat board products should comply with the requirements of Approved Document B (Appendix A) of The Building Regulations, in terms of contribution to the fire loading and rate of surface spread of flame.

Surface should be dry, free of oil, loose suface layer and dust. If required, screw holes and board surface may be filled with Promat Ready-Mixed Joint Filler and sanded accordingly.

Painting

Typically water based paints such as emulsions, may be used with a watered down coat to seal the surface. Alternatively other paint types may require a proprietary sealer, primer or undercoat depending upon the paint system. Consult with paint manufacturers for their recommendations for use on calcium silicate boards.

Papering

When papering Promat calcium silicate boards, size the surface to seal against suction and improve slip, then hang papers or vinlys in the normal way.

HANDLING AND STORAGE

Carry boards on edge, do not drop on corners. Store fully protected from weather on a flat base, clear of ground. Fully support boards across width at not more than 1m centres.

Promat SUPALUX®

Thickness (mm)	Length x Width (mm)	Approx. Weight (kg/m²)	
		Dry	With approximately 6% moisture
6	2440 x 1220 2500 x 1200	5.7 5.7	6.0 6.0
9	2440 x 1220 2500 x 1200	8.6 8.6	9.1 9.1
12	2440 x 1220 2500 x 1200	11.4 11.4	12.1 12.1
15	2440 x 1220 2500 x 1200	14.3 14.3	15.1 15.1
20	2500 x 1250	19.0	20.1
25	2500 x 1250	23.8	25.2

Promat MASTERBOARD®

Thickness (mm)	Length x Width (mm)	Approx. Weight (kg/m²)	
		Dry	With approximately 6% moisture
6	2400 x 1200 2440 x 1220 2135 x 915	6.0 6.0 6.0	6.4 6.4 6.4
9	2400 x 1200 2440 x 1220	9.0 9.0	9.5 9.5
12	2400 x 1200 2440 x 1220	12.0 12.0	12.7 12.7

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