



Supalux Partitions

Internal and External Wall Systems

**Up To 4 Hours
Fire Protection**
(to AS 1530.4 - 1997)

Supalux Boards

Description

Supalux is a calcium silicate board reinforced with selected fibres and fillers. It does not contain asbestos or any other inorganic fibre.

Supalux is off-white in colour and has a smooth sanded surface on one face with a lightly textured reverse face.

Supalux is a strong, lightweight non-combustible building board for use in many fire resisting and general purpose building applications. It is a high performance board which can provide up to 4 hour fire ratings to AS 1530.4.

Applications

Supalux is designed for areas requiring up to 4 hours fire rating compliance:

- Partitions (non-load-bearing), up to 120 mins with timber studs and 240 mins with steel studs.
- Industrial linings for walls up to 240 mins, roofs up to 120 mins.
- Ceilings for protection of timber floors or mezzanine floors up to 120 mins.

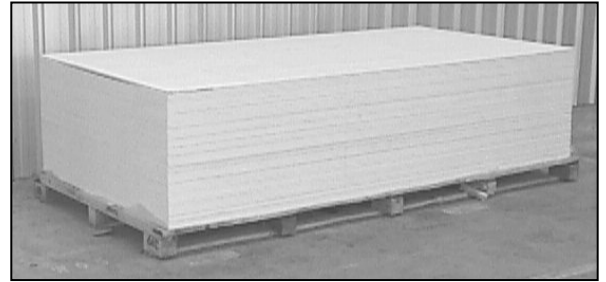
Advantages

- Fire ratings up to 4 hours to AS 1530.4
- Single board used for non-insulated systems
- Easily cut and shaped with timber tools
- Non-combustible board
- May be finished or decorated in normal building methods
- Moisture and chemically resistant
- Withstands continuous temperatures in industrial applications up to 250°C.

Performance Specifications

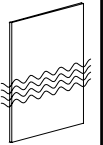
Fire Testing

Fire tests have been conducted to AS1530.3, AS1530.4, BS 476 and other international standards. Numerous approvals are available for ceilings, partitions and non-combustible applications. Please speak to Trafalgar's technical department for test data for your particular application.



Effect of Moisture

Will absorb water causing some loss of strength which is fully recovered on drying. Moisture will not cause leaching or efflorescence and has no permanent effect on the board.

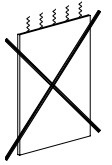


Thermal

Provides a degree of thermal insulation ($k = 0.17W/mK$) and is an ideal support for insulation materials.

Smoke Generation

As the boards contain only a small quantity of organic material and do not rely on resins or fire retardants to achieve performance, emission of smoke and toxic gasses in fire is minimal. When tested to AS 1530.3, Supalux achieves a smoke developed rating of zero.

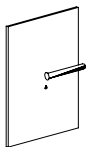


Biological

Resistant to attack by insects or vermin and will not nourish mould growth but should be sealed when used in areas where boards are liable to absorb matter that will support mould.

Chemical

Resistant to brine and chlorine, low concentrations of most acids, alkalis, bleaching agents and solvents but boards should be protected where high chemical concentrations are likely to occur. pH value 7 - 9.



Compatibility

Compatible with all common building materials; non-caustic and will not promote corrosion; will not affect bituminous compounds; should be protected when in contact with anodised aluminium.

Nominal Sizes and Weights		
Thicknesses	6, 9 and 12mm	
Width	1200 mm	
Length	2400 mm	
Weights	6mm	5.8 kg/m ²
	9mm	8.7 kg/m ²
	12mm	11.7 kg/m ²

Supalux Boards

Site Work

Working

General

Use normal woodworking tools

Cutting

Use a fine-toothed panel saw. For shaped cuts use a pad saw, keyhole saw or coping saw. Work with fair face upwards and support the board as cutting progresses. Quick and easy rough cuts can be made by scoring boards with a knife and snapping over a straight edge. For power sawing use a tungsten carbide or diamond tipped blade.

Drilling

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

Sanding

Sand with conventional papers. Garnet paper is best for fine sanding.

Decorating

Painting

Prime board before painting. For water based paints apply a watered down first coat, for oil based paints use a universal primer, for textured paints use manufacturer's recommended sealer. Alkali resistant primers are not required.

Coating

Where an easily cleaned or weather proof surface is required, apply liquid plastic coating. Vapour transmission can be reduced by applying a priming coat followed by two undiluted coats of chlorinated rubber paint, epoxy resin paint, polyurethane or liquid plastic.

Health and Safety

Supalux is formulated without asbestos or any other inorganic fibre, and no special precautions are necessary in handling or working. When using power saws in a confined space, dust extraction equipment is recommended to control dust levels.

Boards will support their own weight, but are not load bearing. Horizontal boards must not be walked on as they are not designed to take additional weight between supports; if there is a risk of this occurring, warning notices should be displayed.

Refer to Material Safety Data Sheet for further information.

Warranty

Limited Warranty:

Purchase and use of this product is subject to Trafalgar's standard terms and conditions of sale. In the event of a product defect, Trafalgar's sole liability, at our option, is to replace product or return its purchase price.

All other warranties whether express or implied, including without limitations, any warranty of merchantability or fitness of purpose are expressly disclaimed unless prohibited by law or given in writing by Trafalgar Building Products for a specific project.

Disclaimer:

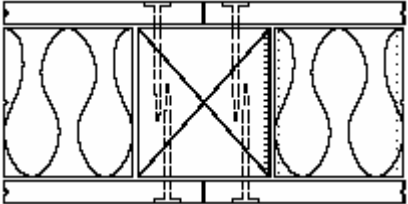
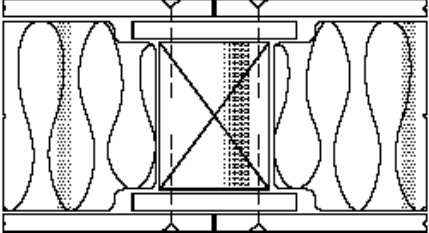
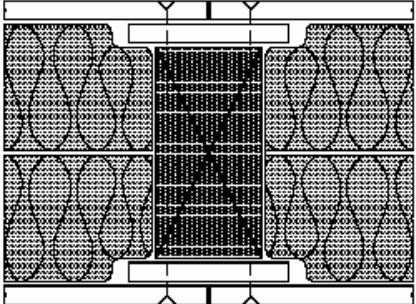
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Supalux Boards

Timber Frame Partitions and Walls

<i>Fire Rating / Approval Authority</i>	<i>Specification</i>	<i>Detail</i>
-/60/60 Authority LPC Assessment CC 86739A	Framing: Nominal 63mm x 50mm timber studs at maximum 610mm centres. Noggings behind horizontal board joints and at 2.5m centres. Infill: Mineral wool 60mm thick (23 kg/m ³). Facing: 9mm Supalux boards fixed to both sides with 50mm nails at max 300mm centres. Maximum height: 3.6m Overall Thickness: 81mm	
-/90/90 Authority LPC Assessment CC 82956 CC 88432E	Framing: Nominal 75mm x 50mm timber studs at maximum 610mm centres. Infill: Mineral wool 60mm thick (60 kg/m ³). Joint Backing: 9mm Supalux backing strips 75mm wide on both faces of studs and behind all horizontal joints fixed on both sides of the joint with 19mm x No.8 self tapping screws. Facing: 9mm Supalux boards fixed to both sides with 50mm No.8 woodscrews. All fixings at max 300mm centres. Maximum height: 3m Overall Thickness: 111mm	
-/120/120 Authority LPC Assessment CC 10947 CC 88244	Framing: Nominal 100mm x 50mm timber studs at maximum 610mm centres. Infill: Two layers Mineral wool 50mm thick (100 kg/m ³) with staggered joints. Joint Backing: 9mm Supalux backing strips 75mm wide on both faces of studs and behind all horizontal joints fixed on both sides of the joint with 19mm x No.8 self tapping screws. Facing: 9mm Supalux boards fixed to both sides with 63mm No.8 woodscrews. All fixings at max 300mm centres. Maximum height: 3m Overall Thickness: 136mm	

Supalux Boards

Steel Frame Partitions and Walls

Fire Rating / Approval Authority	Specification	Detail
<p>-/60/60</p> <p>Authority LPC Assessment CC 87479</p>	<p>Framing: 51mm x 35mm x 0.55mm.</p> <p>Infill: Mineral wool 60mm thick (23 kg/m³).</p> <p>Joint</p> <p>Backing: 6mm Supalux backing strips 50mm wide on both faces of studs and 9mm Supalux backing strips 75mm wide behind all horizontal joints fixed on both sides of the joint with 19mm x No.8 self tapping screws.</p> <p>Facing: 9mm Supalux boards fixed to both sides with 25mm x No. 8 self tapping screws at max 300mm centres.</p> <p>Maximum height: 10m (requires bigger studs than quoted for partitions over 3 metres—refer to technical department for details)</p> <p>Overall Thickness: 81mm</p>	
<p>-/90/90</p> <p>Authority LPC Assessment CC 87479</p>	<p>Framing: 51mm x 35mm x 0.55mm..</p> <p>Infill: Mineral wool 60mm thick (60 kg/m³).</p> <p>Joint</p> <p>Backing: 9mm Supalux backing strips 75mm wide on both faces of studs and behind all horizontal joints fixed on both sides of the joint with 19mm x No.8 self tapping screws.</p> <p>Facing: 9mm Supalux boards fixed to both sides with 25mm x No.8 self-tapping screws at max 300mm centres.</p> <p>Maximum height: 10m (requires bigger studs than quoted for partitions over 3 metres—refer to technical department for details)</p> <p>Overall Thickness: 87mm</p>	

Supalux Boards

Steel Frame Partitions and Walls

Fire Rating / Approval Authority	Specification	Detail
<p>-/120/120</p> <p>Authority FIRTO Report TE 4607</p> <p>LPC assessment CC 87480</p>	<p>Framing: 51mm x 35mm x 0.55mm.</p> <p>Infill: Two layers mineral wool 30mm thick (100 kg/m³) with staggered joints.</p> <p>Joint</p> <p>Backing: 12mm Supalux backing strips 75mm wide on both faces of studs and 9mm Supalux backing strips behind all horizontal joints fixed on both sides of the joint with 19mm x No.8 self tapping screws at 250mm centres.</p> <p>Facing: 9mm Supalux boards fixed to both sides with 30mm x No. 8 self tapping screws at max 300mm centres.</p> <p>Maximum height: 10m (requires bigger studs than quoted for partitions over 3 metres—refer to technical department for details)</p> <p>Overall Thickness: 93mm</p>	
<p>-/180/180</p> <p>Authority LPC Assessment CC 87481</p>	<p>Framing: 100mm x 50mm x 1.2mm steel channel studs at max 610mm centres.</p> <p>Infill: Two layers mineral wool 50mm thick (100 kg/m³).</p> <p>Joint</p> <p>Backing: 9mm Supalux backing strips 75mm wide behind all horizontal joints in inner layer fixed on both sides of the joint with 16mm screws at 300mm centres, outer layer fixed with 25mm self-tapping screws at max 250mm centres.</p> <p>Facing: Two layers 9mm Supalux boards fixed to both sides, joints staggered between layers. Inner layer fixed with 16mm screws at 300mm centres, outer layer fixed with 25mm self tapping screws at max 250mm centres.</p> <p>Maximum height: 8m</p> <p>Overall Thickness: 136mm</p>	

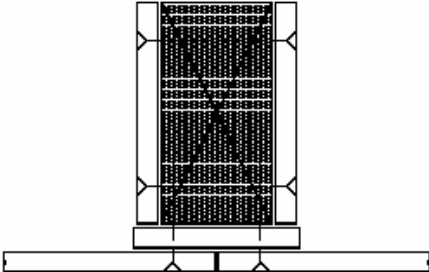
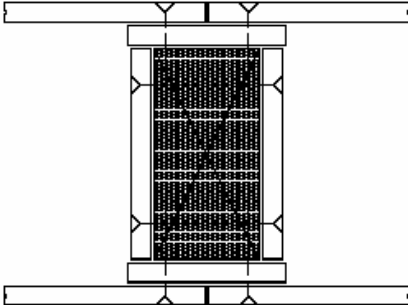
Supalux Boards

Steel Frame Partitions and Walls

Fire Rating / Approval Authority	Specification	Detail
<p>-/240/240</p> <p>Authority TRADA Report FR 363</p>	<p>Framing: 100mm x 50mm x 1.2mm steel channel studs at max 610mm centres.</p> <p>Infill: Two layers mineral wool 60mm thick (100 kg/m³) with staggered joints.</p> <p>Cover strips: 9mm Supalux cover strips 75mm wide over all stud locations and horizontal joints in inner and outer layers, fixed with 16mm screws.</p> <p>Facing: Two layers 9mm Supalux boards fixed to both sides, joints staggered between layers. Inner layer fixed with 16mm screw, outer layer fixed with 25mm screws. All fixings No. 8 self-tapping screws at max 300mm centres.</p> <p>Maximum height: 3m</p> <p>Overall Thickness: 154mm</p>	
<p>-/240/240</p> <p>Authority LPC Assessment CC 90316</p>	<p>Framing: 100mm x 50mm x 1.2mm steel channel studs at max 610mm centres.</p> <p>Infill: Two layers mineral wool 60mm thick (100 kg/m³) with staggered joints.</p> <p>Joint Backing: 12mm Supalux backing strips 75mm wide on both faces of studs fixed with 25mm screws. 12mm Supalux backing strips 75mm wide behind all horizontal joints in inner layer fixed on both sides of the joint with 19mm screws.</p> <p>Facing: Two layers 9mm Supalux boards fixed to both sides, joints staggered between layers. Inner layer fixed with 32mm screws, outer layer fixed with 19mm screws at 250mm centres both sides of joint. All fixings No.8 self-tapping screws at max 300mm centres.</p> <p>Maximum height: 10m (requires bigger studs than quoted for partitions over 4 metres—refer to technical department for details)</p> <p>Overall Thickness: 160mm</p>	

Supalux Boards

Non-Insulated Partitions and Walls—Timber Frames

Fire Rating / Approval Authority	Specification	Detail
<p>Up to -/120/- Fire from one direction</p> <p>Authority LPC assessment CC 83863</p>	<p>Framing: Nominal 100mm x 50mm timber studs at maximum 610mm centres.</p> <p>Joint backing: 9mm Supalux backing strips 75mm wide on fire exposed face of studs and behind all horizontal joints fixed on both sides of the joint with 16mm x No. 8 self-tapping screws. 9mm Supalux strips 100mm wide are fixed to the sides of the studs with 32mm x No. 8 self-tapping screws.</p> <p>Facing: 9mm Supalux boards fixed to fire exposed side only with 63mm x No. 8 woodscrews. All fittings at max 300mm centres.</p> <p>Maximum height: 3m</p> <p>Internal Lining: Non-combustible wall lining such as cement boards or steel</p> <p>Overall Thickness: 118mm (without internal lining)</p> <p>Comments: Combustible materials must not be</p>	
<p>-/240/240</p> <p>Authority LPC Assessment CC 90316</p>	<p>Framing: Nominal 100mm x 50mm timber studs at maximum 610mm centres.</p> <p>Joint backing: 9mm Supalux backing strips 75mm wide on both faces of studs and behind all horizontal joints fixed on both sides of the joint with 16mm x No. 8 self-tapping screws. 9mm Supalux strips 100mm wide are fixed to the sides of the studs with 32mm x No. 8 self-tapping screws.</p> <p>Facing: 9mm Supalux boards fixed to both sides of wall with 63mm x No. 8 woodscrews. All fittings at max 300mm centres.</p> <p>Maximum height: 3m</p> <p>Internal Lining: Non-combustible wall lining such as cement boards or steel</p> <p>Overall Thickness: 136mm</p> <p>Comments: Combustible materials must not be placed within 100mm of wall.</p>	

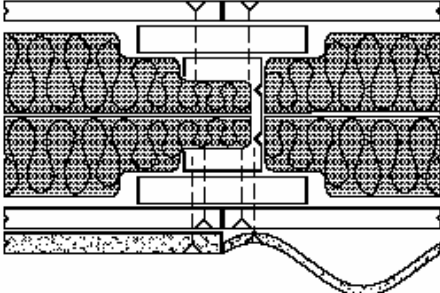
Supalux Boards

Non-Insulated Partitions and Walls—Steel Frames

Fire Rating / Approval Authority	Specification	Detail
<p>Up to -/120/- Fire from one direction</p> <p>Authority LPC assessment CC 82955G CC 10623 CC 87480</p>	<p>Framing: 51mm x 35mm x 0.55mm</p> <p>Joint backing: 12mm Supalux backing strips 75mm wide on exposed face of studs and 9mm Supalux backing strips behind all horizontal joints fixed on both sides of the joint with 19mm x No. 8 self tapping screws.</p> <p>Facing: 9mm Supalux boards fixed to fire exposed side only with 30mm x No. 8 self tapping screws at max 300mm centres.</p> <p>Maximum height: 10m (Requires bigger studs than quoted - refer to technical department for details)</p> <p>Internal Lining: Non-combustible wall lining such as cement boards or steel</p> <p>Overall Thickness: 72mm (without internal lining)</p> <p>Comments: Combustible materials must not be</p>	
<p>Up to -/120/- Fire from both directions</p> <p>Authority LPC assessment CC 82955G CC 10623 CC 87480</p>	<p>Framing: 51mm x 35mm x 0.55mm</p> <p>Joint backing: 12mm Supalux backing strips 75mm wide on both faces of studs and 9mm Supalux backing strips behind all horizontal joints fixed on both sides of the joint with 19mm x No. 8 self tapping screws.</p> <p>Facing: 9mm Supalux boards fixed to both sides of wall with 30mm x No. 8 self tapping screws at max 300mm centres.</p> <p>Maximum height: 10m (Requires bigger studs than quoted - refer to technical department for details)</p> <p>Overall Thickness: 87mm</p> <p>Comments: Combustible materials must not be placed within 100mm of wall.</p>	

Supalux Boards

External Partition and Wall Construction

<i>Fire Rating / Approval Authority</i>	<i>Specification</i>	<i>Detail</i>
Up to -/120/120 Fire from both sides of the wall Authority Tyco Recommendation based on TE 4607	Wall Construction: Use fire rated system as per earlier sections of the manual. Exterior Sheeting: A non-combustible weather-proof sheeting such as sheet or corrugated steel, cement reinforced fibre sheeting or aluminium may be used. Fixing: Sheeting is to be fixed to stud work through Supalux with self-tapping screws at 300mm centres.	

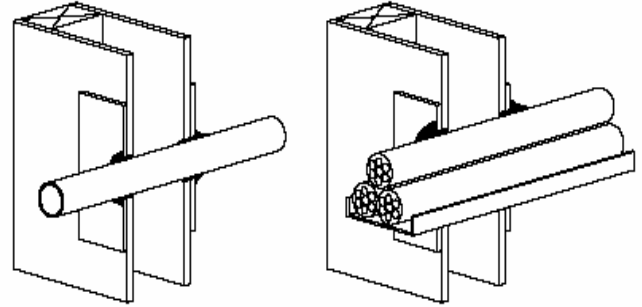
Supalux Boards

Service Penetrations

Metal Pipe and Cable Penetrations

Where pipes or cables pass through a wall, 6mm Supalux cover plates are screwed to face sheet with 16mm woodscrews. Cover plates are sized to extend 100mm away from penetration and may be fitted externally or internally.

Fyreflex or Fyremex One sealant is used to seal gaps and is finished with a 20 x 50mm fillet on cables and trays. See Fyreflex or Fyremex One manual for further details.



Authority

CSIRO FSV 0715

Supalux Boards

Supalux Product Properties

Product Property	Value
Length and breadth tolerance (mm)	-3 to -1
Thickness tolerance (mm)	-0.7 to 0
Nominal Dry Density (kg/m ³)	875
Alkalinity / pH value	7 - 9
Moisture content (%) - Conditioned	3 - 6
Moisture movement (%) - Conditioned to Saturated	0.05
Water Absorption (%)	68
Thermal conductivity (W/mK)	0.17
Thermal movement (x 10 ⁻⁶ / °C) up to 100°C	9
Flexural modulus (N/mm ²) - Average of 2 directions	3300
Bonding Strength (N/mm ²) - Average of 2 directions	8.5
Tensile strength (N/mm ²) - Average of 2 directions	3.5
Compressive strength (N/mm ²)	6
Compressive strength (N/mm ²) at 5% compression	8
Weights (kg/m ²)	6mm 9mm 12mm
	5.8 8.7 11.7