



FLAMEGUARD® Data Sheet

Description

Flameguard® panels are **non-combustible** sandwich panels manufactured with 0.6 mm steel skins and a core of mineral wool fibre. The core is manufactured with the fibres oriented across the thickness of the panel to maximize its structural strength.

The panels have a cover width of 1200 mm and are supplied in lengths to suit handling limitations. Refer to the table below for maximum standard lengths. The panels are supplied with the ends square cut only.

The steel skins may be supplied flat or with light ribbing.

Max Lengths for Standard Supply	
Panel Thickness mm	Max Panel Length metres
50	5
75	7
100	9
150 - special order	11

Where Flameguard® is used.

Flameguard® panels are used as wall and ceiling panels. During selection of an application and its installation, care is required to prevent water entry into the core, as this has an adverse effect on insulation performance and can lead to corrosion.

The panels are not recommended for use in cold storage below 8 degC, because of the need for near perfect vapour sealing. In cool stores above 8 degC, double sealing is recommended to ensure vapour is prevented from entering into the core.

As with most sandwich panels, the panels are not generally recommended for use in warm rooms, because of the risk of corrosive vapours entering the panel. When used in external walls, it is necessary to ensure water is prevented from entering into the panel core.

Handling of Packs and Panels

Lift packs slowly by forklift (two forklifts for long panels) and ensure the lower face and edges are protected to prevent damage.

Store packs one high on level ground and ensure panels are kept dry.

For manual handling, slide the panel off the stack and carry it on edge. Lifting off stacks from the ends only can cause panel buckling.

When lifting long panels by scissor lift, consider using a shorter panel below to spread the load.

Weights of 1200 mm wide Panels (kg)			
Panel Length (metres)	Panel Thickness mm		
	50 mm	75 mm	100 mm
4	75	87	99
5	94	109	124
6	-	131	149
7	-	152	173
8	-	-	198

Fire Performance

All Flameguard® panels may be used where **non-combustible** material is required by the Building Code of Australia.

Flameguard® panels in 100 mm thick non-load bearing walls have a **one hour Fire Resistance Level (FRL) of -/60/60** to AS 1530.4. Refer to Bondor for Flameguard FRL installation specifications.

Insurance Application Requirements

Factory Mutual Insurance has advised that Flameguard® panels, when correctly installed, may be used where non-combustible building panels are required for fire insurance purposes. The requirements include the following:

- rivets, screws and trims (angles, channels, etc) are all steel or stainless steel.
- ceilings are supported either by mushroom fixings that include a steel washer below the panel or by steel supports at the ends of panels.
- wall panels are not load bearing and do not support the weight of the ceiling.

Installation Tips

Special care is required during installation to prevent damage caused by handling panels that are heavier than traditional lightweight sandwich panels.

When standing up heavy wall panels by tilting them to the vertical position, the lower edge is likely to require protection. This may include temporarily fitting a length of channel over the lower edge to protect the edge during careful raising of the panel.

For Ceiling Installations, the following special conditions need to be considered.

It is advisable to raise panels with a scissor lift using a support panel as noted previously.

Flameguard® panels require approximately twice the number of supports that EPS cored ceiling panels require for the same span. As a minimum, use two mushroom suspensions at each end and three suspensions per panel at any intermediate support. More may be required.

The minimum distance for mushroom suspensions is 200mm in from the edge of a panel.

Never walk on a ceiling panel until all suspensions have been installed and tensioned.

Install a safety sign at access points to the ceiling which includes the advice that **one person only** is permitted on any one 1200 wide panel. The ceiling designer should provide details of the sign.

Persons walking on ceilings with mineral wool cored panels can cause serious damage. While walking with care and soft shoes a few times does not cause damage, any more frequent walking requires 9mm thick x 1200 wide plywood boards as load spreaders. Plywood load spreaders are needed both during construction and later for light maintenance access ways.

Avoid concentrated loads on the ceiling panels. Always use load spreaders under the feet of a stepladder and the like. 400 x 400 x 15 mm plywood is suitable under each foot.

No storage loads are permitted on ceiling panels – either temporary or permanent.

Clean up debris and waste on completion of installation to reduce surface scuffing and possible corrosion.



Metecno Pty Limited trading as Bondor®
ACN 44 096 402 934

This advice is of a general nature only. Designers must provide for adequate structural performance and other building code requirements.

This information is subject to change – always check with Bondor for current information.