

MELTECA® FR

Fire Retardant Panels for Wall Linings

Technical Information

Description

Melteca® FR is manufactured by laminating melamine saturated paper to both faces of a specialty medium density fibreboard (MDF) substrate. The decorative surface provides the same robust finish as the suite of Melteca® low pressure decorative surfaces. Melteca® FR is suited to vertical applications (wall linings) where fire performance is required.

Appearance

Melteca® FR panels are available in the same colour options and surfaces finishes as the current Melteca® offer. Please consult the Melteca® Availability Guide at www.laminex.co.nz. The panels can be identified by the distinctive pink core of the MDF substrate.

Applications

Melteca® FR is designed for interior wall linings where fire performance as detailed in NZBC Clause C - Protection From Fire, is required. Please refer specifically to C/AS2 - AS6 - Table 4.1.

Decorative Surface Properties & Substrate Dimensions

	Solid Colours	Patterns/Woodgrains
Resistance to Surface Abrasions	>400 cycles to substrate	>150 cycles to 50% pattern removal
Resistance to Steam	No cracks or blisters	
Resistance to Staining	No visible marks	
Resistance to Cracking	No cracking	
Formaldehyde Emission	E0 - ≤0.5mg/L	
Dimensions	Sheet size 2440 x 1220 (+/- 2mm)	
Thicknesses	18mm (-0.0mm + 0.35mm)	
Weight/m2	18mm - 13.72kgs	

Fire Performance

The Group Number Classifications are generated from tests carried out and data reduced in accordance with the test procedure described in ISO 5660 2002 - Reaction to Fire test - Part 1: Heat Release and Part 2: Smoke Production Rate, for the purposes of determination of the Group Classification in accordance with the New Zealand Building Code Verification Method C/VM2 Appendix A

Melteca® Fire Retardant Panels

Group Number Classification: 1-S

Limitations

Melteca® FR panels are:

- Intended for vertical surfaces where fire performance of the surface is required
- Not intended for exterior use
- Not intended for use in high humidity or wet applications such as saunas or shower/wash down rooms
- Not for use where the substrate could come in contact with water. Failure to keep dry will affect the performance of the panel
- Must be handled and installed in a safe manner. Please refer to the Health and Safety section in this brochure.

Please note: There may be a greater propensity for splitting of the substrate when fixing into the edge of Melteca® FR panels compared to standard Lakepine MDF. Please refer to Fixing Recommendations below.

Handling & Storage

- Melteca® FR panels have a prefinished surface and must be handled accordingly
- Do not slide the panels over each other or across sharp or gritty surfaces
- Melteca® FR panels must be stored away from moisture, heat and sunlight
- Sheets must be flat stacked on aligned bearers/gluts
- Bearers/gluts must be of uniform thickness and must extend across the full width of the stack
- Melteca® FR panels must be protected from the weather, dampness and direct wetting and must be stored inside

Durability

When stored, handled, used and maintained in accordance with this document, Melteca® FR panels will meet the durability requirements of NZBC B2.3.1 (c) for 5 years.

Laminex New Zealand® will not be liable to any person for any product failure if the conditions as to storage, handling, use and maintenance of Melteca® FR panels as outlined in this document are not complied with.

Fixing Recommendations

There are many fixing options available when using Melteca® FR as a prefinished wall lining. These include; direct fix to timber or steel framing, fixing over existing linings and combining Melteca® FR panels with proprietary hidden fixing systems such as Stickman split rail system and Fastmount, which offers a variety of panel mounting options. Jointing detail options include a minimum 2mm gap, an 8 - 10mm gap to create a negative detail, aluminium jointers, and timber mouldings covering the join.

When fixing directly to framing or over existing linings consider using mechanical fastenings in conjunction with adhesive. Mechanical fixings along the top and bottom edge with adhesive used to secure the general body of the panel will provide an easily installed solution.

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When fixing through the face of the panel, mechanical fastenings shall be a minimum 40 x 6mm for 18mm panels at 300mm centres along the top and bottom edges. Holes through the Melteca® FR panel shall be oversized to accommodate the screw fixing passing through the panel without chipping the surface.

Adhesives: Recommended adhesives are Sikaflex 123 MS Bond, Sika Nailbond premium, Gorilla 240FC and Gorilla MS sealant. These shall be used in continuous beads on the face of the supporting framework or at 400mm centres when fixing is over continuous lining.

It is recommended to follow the adhesive manufacturers instructions for the amount of adhesive to be used.

Preparation of surfaces: Substrates (timber, steel or existing linings) must be free from dust and loose material. Any painted surface must be sanded to provide a key for the adhesive. Steel surfaces should be abraded with a Scotch-brite pad, followed by an application of Sika Cleaner 205 or similar. The surface of the Melteca® FR panel shall be cleaned using Sika Cleaner 205 in the areas where the adhesive will be applied (in line with the framing or at 400mm centres if fixing over existing linings).

If edge fixing is required, it is important not to fix edge screws closer than 25mm from the corner of the board. Do not over tighten screws as further turning after screws are tight will reduce the holding power.

Maximum screw gauge and minimum pilot holes when edge fixing into Melteca® FR panels:

Board thickness	18mm
Maximum screw gauge	8
Recommended pilot hole	4mm

Edge Finishing

All exposed substrate must be sealed before service. It is recommended that all edges of panels be edge finished.

Edge tape for Melteca® boards must be applied with an edge banding machine as cold pressing with contact adhesive is unsatisfactory. Edgetape is available for all Melteca® colours in a range of material types, sizes and finishes.

For details on this refer to the Melteca® Availability Guide at www.laminex.co.nz

Framework Setout

When fixing directly to a framed wall, allow for the stud, rafter, beams etc to accommodate a minimum 2mm expansion gap at panel edges especially where large areas or long walls are to be covered.

Where panels are abutting structural elements including beams and posts, or any concrete/masonry products, a minimum clearance of 10mm is recommended.

Please be aware of the sheet size (2440 x 1220) when setting out timber or steel framing.

Nominal Framing Setout		
Panel Thickness (mm)	Stud Centres (mm)	Dwang Centres (mm)
18	400	
	600	1200

Care & Maintenance

Melteca® FR panels have a hard wearing surface, but like all materials can be damaged if used without care and maintenance. The following information will assist in maintaining the surface of the panels with minimum time and effort.

- Wipe off all food and drink spills immediately.
- Never use abrasive pads, steel wool or abrasive cleaners (cream or powder) to clean the surface.
- To avoid scratching or marking the surface make sure the cleaning cloth does not contain any hard or foreign particles.
- Regular cleaning requires only a wipe down with warm soapy water, follow up with a dry cloth. The use of a streak free glass cleaner and a soft cloth can also maintain the surface.
Always spray any cleaning product onto a soft cloth, Never directly onto the Melteca® panel.

Melteca® decorated board products should not remain in contact with hypochlorite bleach. Caustic solutions, hydrogen peroxide solution in any concentration, mineral acid, sodium bisulphate, potassium permanganate in any concentration, berry juice, silver nitrate (1% concentration), gentian violet in any concentration, mild silver protein, laundry blue or iodine solution.

Health & Safety

Health and Safety precautions must be taken when working with wood panel products.

- Exposure to wood dust and/or formaldehyde may cause irritation to the eyes, respiratory system and skin, and may cause sensitization resulting in asthma and/or in dermatitis.
- Wood dust is classified as a known carcinogen. Repeated inhalation of wood dust over many years may cause nasal cancer.
- Formaldehyde has been evaluated by the International Agency for Research on Cancer (IARC) as a Group 1, carcinogenic to humans.
- Storage areas containing large quantities of Melteca® FR panels must be adequately ventilated.
- Work areas must be well ventilated and kept clean. Sawing, sanding, and machining equipment must be fitted with dust extractors to ensure that dust levels are kept within standards laid down by Occupational Health and Safety New Zealand. If not, a dust mask conforming with AS/NZS 1715 and AS/NZS 1337 must be worn.
- Offcuts, shavings and dust must be disposed of in a manner which avoids the generation of dust and in accordance with the requirements of local waste authorities.
- In end use applications all raw substrate surfaces exposed to the occupied space must be sealed.

For further information and Safety Data information please phone Laminex New Zealand® Customer Services – 0800 303 606

Technical Support

As not all product use options can be described herein, additional end use and specifying information is available as a complimentary service.

For further information please phone Customer Services 0800 303 606

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