

# MELTECA

## The joy of colour

### TECHNICAL INFORMATION

#### DESCRIPTION

Melteca is a tough melamine surface laminated to Superfine particle board or Lakepine medium density fibre board (M.D.F.) to provide a double faced, pre-finished decorative panel.

Melteca is available in eight different textured finishes and a range of colours and woodgrains. These are presented as the Melteca Colour Bank and Melteca Fashion Colour Stories.

#### COMPOSITION

Sheets of melamine impregnated overlay are bonded to both sides of either Superfine particle board or Lakepine medium density fibre board substrate under heat and pressure. The resin on the top surface of the overlay cures, forming a tough, stain resistant finish.

Sheets are identified by Melteca branding, including colour and other manufacturing details along the panel edges. Packs are clearly identified with the distinctive brand label.

#### USES

- Kitchen, bathroom and laundry cabinets.
- Furniture - commercial and residential.
- Wall units.
- Bar fronts.
- Shelving.
- Wardrobes.
- Shop fittings and displays.
- Wall linings (provided specific installation instructions are followed).

**For uses other than those specified in this section, and for use in the construction industry, please contact Fletcher Wood Panels Limited Customer Services Department for advice, New Zealand Ph 0800 800 080 or Australia Ph 1 800 126 080.**

#### SPECIFYING

When specifying Melteca include the following information:

Colour	refer to 'Melteca Joy of Colour' brochure
Finish	stipple, gloss, satin, woodgrain etc.
Sheet size	2440 x 1220 or 2440 x 1830
Thickness	in mm
Substrate	Lakepine MDF or Superfine particle board
Edge Finish	Melteca PVC or Edgetape colour

#### DESIGN CONSIDERATIONS

##### Edge Finishing

The edges of Melteca can be finished using edge tapes, rigid PVC, soft forming, T-edge, solid timber clashing strips or direct postforming. Where the edges or corners are expected to take knocks, rigid PVC edges are recommended.

**Note:** Any exposed faces and edges of Melteca must be sealed before service.

##### Load Bearing Applications

Melteca is suitable for load bearing applications such as industrial shelving, tables, desks, store displays, shop fittings, work benches and kitchen cabinets.

When designing these load bearing items the tables below can be used to establish the correct support spacings to achieve an acceptable deflection for a given loading.

##### Shelf Loading Span Tables\*

###### Single Span Table. (mm)

Shelf Loadings kg/m <sup>2</sup>	Board thickness		
	Shelf Span (mm)		
	12	16	18
25	690	930	1040
50	550	740	830
75	480	640	720
100	440	580	660
200	310	420	470
300	250	340	380
400	220	290	330
500	210	270	310

**Shelf Loading Span Tables continued**

Multiple Span Table. (mm)			
Shelf Loadings kg/m <sup>2</sup>	Board thickness		
	Shelf Span (mm)		
	12	16	18
25	890	1190	1330
50	630	840	940
75	510	680	770
100	440	590	670
200	310	420	470
300	250	340	380
400	220	290	330
500	210	270	310

\* Spans based on creep factor of 2 with final deflection of 0.006 x span.

\*\* Loadings uniformly distributed.

**Performance Data**

Properties	Test Method	Test Results
Resistance to wear	Taber Abraser ISO 4586-2 (6) Din 53799(4.66) AS/NZS 4266.20	Patterns > 150 Cycles to 50% Stipple removal Colours > 400 cycles to substrate
Resistance to staining	Liquid Agents for 16 Hours ISO 4586 (15) DIN 53799 (4.14.2) AS/NZS 4266.25	No visible marks
Resistance to dry heat	180°C for 20 minutes ISO 4586.2(8) DIN 53799(4.9) AS/NZS 4266.26	No cracks
Resistance to cracks	70°C oven for 24 hours ISO 4586.2 (24) DIN 53799 (4.7.3) AS/NZS 4266.24	No cracks
Steam resistance	Steam for 2 hours ISO 4586.2(24) DIN 53799(4.11.2) AS/NZS 4266.23	No cracks or blisters

**Melteca complies with the requirements of AS/NZS 1859.3 1996**

**Early Fire Hazard Indices**

AS 1530 : 1989 part 3 test results for Melteca Champagne Stipple on Lakepine MDF are as follows :

	9mm	18mm
Ignitability	12	13
Spread of Flame	8	6
Heat Evolved	8	6
Smoke Developed	7	4

**LIMITATIONS**

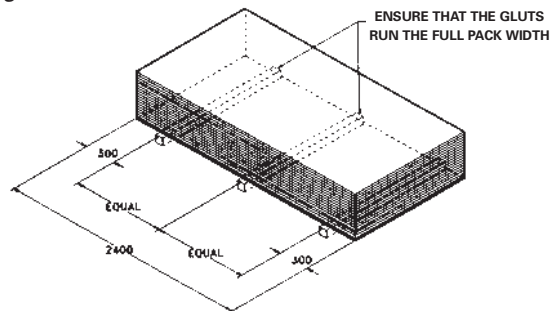
- Do not use Melteca in constant wear situations such as sink bench tops, high use shop counters, bar tops or restaurant tables.
- Melteca must not be used in high humidity or wet areas such as saunas or showers.
- Health and Safety Precautions (Refer Health and Safety section of this brochure).

**Handling and Storage**

Melteca is a high quality product and must be handled accordingly.

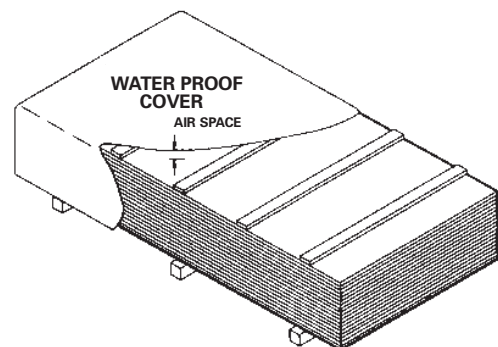
- Do not slide panels over each other or across sharp or gritty surfaces.
- Melteca must be stored away from moisture, heat and sunlight. Melteca is supplied in a protective plastic wrap to protect against moisture and dirt.
- Sheets must be flat stacked on aligned bearers or gluts.
- Bearers or gluts must be of uniform thickness and must extend across the full width of the stack. See Fig 1.

**Fig 1**



Melteca must be protected from the weather, dampness and direct wetting and should be stored inside. If stored outside a water proof cover must be provided supported clear of the top and sides of the board using battens to allow air to circulate freely around the stack. See Fig 2.

**Fig 2**



**Fungal and Insect Resistance**

Melteca is resistant to fungal decay and insect attack providing the moisture content of the panels does not exceed 20% for extended periods of time.

**Effects of Heat**

Precautions must be taken to ensure that Melteca is kept clear of nearby heat sources, such as free standing fire places and space heaters, wall ovens, hot plates etc. The structural life of the substrate may be impaired if temperatures exceed 50 degrees C for prolonged periods.

Manufacturers of heat appliances, referenced above must be consulted to ensure that correct clearances and ventilation are provided for.

## DURABILITY

When stored, handled, used and maintained in accordance with this document, Melteca will meet the durability requirements of NZBC B2.3(d) for 5 years.

Fletcher Wood Panels Limited will not be liable to any person if the conditions as to storage, handling, use and maintenance of Melteca as outlined within this document are not complied with resulting in product failure.

### Dimensions

Sheet Size (mm)	Substrate Thickness (mm)	Weight per sheet (kg)	
		Lakepine	Superfine
2440 x 1220	4.75	11.04*	Not available
	6	13.93*	Not available
	9	19.83	18.52
	12	26.43	23.52
	15	33.04	29.47
	16	35.25	31.55**
	18	39.65	35.42**
	25	55.07	49.21
2440 x 1830	9	29.47	27.23
	12	39.65	35.27
	16	52.87	47.33**
	18	59.47	53.13**
	25	82.60	72.47
	30	99.12	88.54

\* 4.75mm and 6mm is available in MDF, single sided only

\*\* Also available in HMR Superfine

Sheet Tolerances (mm)	
Length and Width	+/- 2.00
Thickness (Melteca on Lakepine MDF)	+ 0.35 - 0
Thickness (Melteca on Superfine particle board)	+ 0.40 - 0
Squareness (maximum difference between diagonals)	3.00
Straightness (maximum deviation in plane along the edge)	1.00 per metre

## WORKING RECOMMENDATIONS

### Machining

To obtain the best results when machining Melteca, avoid excessive speed rates.

Guidelines for Cutting Melteca				
Saw Diameter/mm	250	300	350	400
Saw RPM	4600	3800	3300	2900
# of Teeth	80	96	108	120
Rim speed m/sec	47	56	66	75
Max Feed rate m/min	43	52	58	65

As these are examples taken from various tooling manufacturers, please consult with your tooling supplier to ensure safe operating speeds are used.

A saw fitted with a scribing saw or hollow ground saw blade will produce the best result directly from the sawing equipment. This will eliminate further work prior to edge finishing.

However sophisticated machinery is not always necessary to achieve quality edge finishes. A sharp bench saw, buzzer or router combination, or for the home handyperson, a fine tooth panel saw, hand-planer combination can be used to give excellent results.

In both applications, panels should be cut slightly over-size and then edges planed to final dimensions. To avoid excessive breakout when hand-sawing, keep saw on a low angle to the sheet, provide adequate support to sheets and do not force saw-blades through the cut.

### Gluing

The surface of Melteca is made to withstand resistance to adhesion, however, this can cause problems with some glues. For gluing of Melteca to Melteca surfaces some abrading of the surface is usually required and the use of a Melamine adhesive such as Robert's Anchorweld should be used.

For using as a wall lining, framing must be dry and a suitable wall board adhesive such as Maxbond should be used after first sanding the surface to provide a key for the adhesive. Expansion joints should also be allowed for.

### Fastening

#### Selecting screws

Always use screws specifically designed for use with medium density fibre board or particle board, e.g. Twinfast-screws or Super-screws. Drill a pilot hole slightly beyond the full depth of the screw penetration.

Do not over-tighten screws.

A drop of adhesive applied to the screw thread will increase holding power.

#### Face Screwing

To avoid surface lifting, screws must not penetrate more than two thirds of panel thickness, e.g. 16mm panel = 10.5mm maximum penetration.

Pilot Hole Diameters for Superfine Particle Board								
Screw gauge	3	4	5	6	7	8	9	10
Pilot Hole Dia in mm	1.0	1.25	1.45	1.6	1.65	1.95	2.1	2.25
Pilot Hole Diameters for Lakepine MDF								
Screw gauge	3	4	5	6	7	8	9	10
Pilot Hole Dia in mm	1.	2	2.4	2.6	2.7	3.0	3.3	3.5

## EDGE FINISHING

It is recommended that all edges of panels such as doors and drawer fronts be edge finished.

Melteca Edging options are:

- Melteca Melamine Edge Tape.
- Melteca Rigid PVC.

### Melteca Melamine Edge Tape

- Melteca melamine-coated edge tape is available in all Melteca colours, woodgrains and a range of widths to suit panel thicknesses.
- Care must be taken when applying around tight curves.

### Application :

#### Mechanical Edge Bander

- Edge tape must be applied at feed rates and temperatures recommended by machinery and adhesive suppliers' recommendations.

#### Hand Ironing

- Ensure iron is adjusted to cotton / linen setting temperatures and the surface is clean.
- A layer of paper between the iron and tape will avoid burning or marking the tape surface.
- Repressing firmly with a cork block whilst still hot will ensure an improved bond is achieved.

#### Trimming

- Trim flush to the surface using a veneer trimming tool, plane blade or broad chisel.

#### Finishing

- Sand lightly along edge using a fine grit sand paper at an angle to form a slight arris.

#### Melteca Rigid PVC Edging

- Melteca rigid PVC must be applied with an edge banding machine as cold pressing with contact adhesives is unsatisfactory.
- Melteca rigid PVC is available in all Melteca colours, some woodgrains and a range of widths to suit panel thicknesses.
- Melteca rigid PVC comes primed for hot melt glue application or preglued for heat re-activated machines.
- Apply at feed rates and temperatures as per the mechanical edge bander and adhesive supplier's recommendations.

## CARE AND CLEANING

Regular cleaning requires only a wipe down with warm soapy water, follow up with dry cloth.

### NEVER USE ANY OF THE FOLLOWING ON MELTECA FOR ANY REASON:

Abrasive cleaners, such as

- Jif
- Vim
- Ajax
- Chemico
- Brasso
- Mr Muscle cleaner
- Neat Janola
- Wire wool
- Scourer pads
- Sand paper

## Spills, Stain and Mark Removal

### Stubborn Marks or Stains

Clean with Ajax spray and wipe; a soft nylon nail brush will assist if dirt particles prove hard to move.

### Hair Rinse, Bleach, Oven Cleaners

Wash with hot soapy water and wipe dry.

### Fabric Dye

Cold water wash and wipe dry. Then methylated spirits, then wipe with warm soapy water and wipe dry.

### Battery Acid, Hydrogen Peroxide, Glue Hardeners

Cold water wash and wipe dry.

### Hair Dye

Wash with methylated spirits, then wipe with warm soapy water and wipe dry.

### Leather Dye

Wash with methylated spirits and wipe dry followed by mineral turpentine, then wipe with warm soapy water and wipe dry.

### Smearing, Fingermarks, Marking from Cold or Hot Dishes, Stickiness

Apply 1 or 2 applications of acetone (from pharmacy), then wipe with warm soapy water and wipe over with dry cloth.

### Newsprint

Methylated spirits or mineral turpentine then wipe with warm soapy water and wipe dry.

### Rust

Vinegar or lemon juice.

### Pencil

Water and cloth.

### Felt Pen or Dry Marker

Methylated spirits or acetone, then wipe with warm soapy water and wipe dry.

### Paint

Acetone or duco lacquer thinners (from paint shop), then wipe with warm soapy water and wipe dry.

### Glue - Contact Type

Ados solvent N (from paint shop), then wipe with warm soapy water and wipe dry.

### Persistent Stains or Marks, Bleaching, Fading, Colour Changes

Refer to Fletcher Wood Panels Limited Customer Services

## HEALTH AND 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 sensitisation resulting in asthma, and result in dermatitis from skin contact.
- Wood dust is classified as a known carcinogen. Repeated inhalation of wood dust over many years may cause nasal cancer. Formaldehyde is classified as a probable carcinogen.
- Storage areas containing large quantities of Melteca 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 Worksafe Australia, Occupational Health and Safety New Zealand, or the specific country of use. If not, a dusk mask conforming with AS/NZS 1715 and AS/NZS 1716 and eye protection conforming with 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 product surfaces exposed to occupied space must be sealed.

For further information and Safety Data information, please phone Fletcher Wood Panels Limited Customer Services Department 0800 800 080.

## 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 Fletcher Wood Panels Limited Customer Services Department, Toll Free Phone

 **NEW ZEALAND 0800 800 080**

 **AUSTRALIA 1 800 126 080**

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