

trade essentials®

Ultracraft™ MDF Panels for thermoforming

Technical Data Sheet

Summary

Trade Essentials Ultracraft Medium Density Fibreboard (MDF) Panels provide the high grade surface routing performance required for thermoformed doors & panels, while reducing the need for finishing processes, such as sanding, thereby increasing manufacturing efficiencies.



Applications

- Doors
- Panels
- Cabinetry
- Wardrobes
- Kitchens
- Bathrooms

Functional Benefits



Vertical
Application



Easy To
Machine



Low
Sanding



Impact
Resistant



Dimensional
Stability

Product Characteristics

| Attribute | Description |
|------------------------------------|---|
| Product Category | Low Pressure Melamine (single sided) |
| Substrate Type | Moisture Resistant EO MDF |
| Sheet Size (nominal) | 2400mm x 1200mm, 3600mm x 1200mm |
| Thickness (nominal) | 18mm |
| Camber | 6mm, 12mm |
| Weight (Kg/m ² approx.) | 14.5 |
| Finish | Natural |
| Colour/Pattern | To view the full range, please visit www.laminex.com.au |

Surface Performance (Tested to AS/NZS 1859.3)

| Attribute | Minimum Values |
|---|--|
| Resistance to Surface Abrasion | Solid colours: Average wear \geq 300 cycles |
| Porosity | Rating \leq 3 |
| Steam Resistance | Appearance rating not worse than 3 <i>Moderate swelling</i> |
| Cracking Resistance | No visible cracks or micro cracks |
| Stain Resistance | Rating \leq 2 <i>Faint stain left on surface</i> |
| Lightfastness (Tested to ISO 4586-2) | Contrast: Grey scale rating \geq 4 <i>When tested in contrast with Blue wool 6 ref: ISO 105-A02</i> |

Substrate Performance (Tested to AS/NZS 1859.2)

| Attribute | Units | Typical Values* |
|---------------------------------|-------------------|-----------------|
| | | 18mm |
| Thickness Tolerance | mm | ±0.3 |
| Density | Kg/m ³ | 805 ± 20 |
| Internal Bond | MPa | 1.25 - 1.4 |
| Modulus of Rupture | MPa | 44.5 - 48 |
| Modulus of Elasticity | MPa | 3300 - 3800 |
| Surface Soundness | MPa | 1.6 - 1.9 |
| Screw Holding, Face | Force N | 1100 - 1400 |
| Screw Holding, Edge | Force N | 1000 - 1300 |
| Thickness Swell (24hr) | % | 4 - 5 |
| Wet Bending Strength (Method A) | MPa | 8 - 10 |
| Formaldehyde | mg/L | E0 ≤ 0.5 |

* Table contains representative values only. Performance variation outside stated typical values does not constitute a product failure.

Specialty Performance

| Attribute | Tested to | Typical Values | |
|------------------------|---|---|-------------------------|
| Fire Hazard Properties | AS/NZS 3837 <i>(In accordance to AS5637.1)</i> | Group Number | 3 |
| | | Average Specific Extinction Area (ASEA) | 18.2 m ² /Kg |

Emissions & Environmental Performance

| Attribute | Tested to | Unit | Minimum Values |
|----------------------------------|---------------|----------------------|----------------|
| Formaldehyde | AS/NZS 1859.2 | mg/L | E0 ≤ 0.5 |
| Volatile Organic Compounds (VOC) | ASTM D5116 | mg/m ² /h | ≤ 0.05 |

Important Information

| Note | Details | | | | | | | | | | | | | | | |
|---|---|------------------|------------------|---------------|----------|--------|---|-----------|---------|---|-----------|---------|---|-----------|---------|---|
| Ⓜ ONLY use for internal applications | Claims arising from non-internal applications are not covered under warranty | | | | | | | | | | | | | | | |
| Ⓜ ONLY use for vertical applications | Claims arising from horizontal applications are not covered under warranty | | | | | | | | | | | | | | | |
| Ⓜ DO NOT expose to prolonged direct or indirect UV light | Claims arising from prolonged exposure to UV light (natural or artificial sources) resulting in colour changes beyond the tolerances stated in this document, are not covered under warranty | | | | | | | | | | | | | | | |
| Ⓜ DO NOT use in high impact or high surface durability installations | Claims arising from high impact or high surface durability applications are not covered under warranty | | | | | | | | | | | | | | | |
| Ⓜ DO NOT allow heat, hot gases or moisture to contact doors or panels | Claims arising from frequent or excessive exposure to heat or moisture are not covered under warranty | | | | | | | | | | | | | | | |
| | Claims arising from damage due to front venting oven installations without a heat deflector shield are not covered under warranty | | | | | | | | | | | | | | | |
| | Claims arising from damage due to fugitive heat or moisture leaking from appliance seals are not covered under warranty | | | | | | | | | | | | | | | |
| | Claims arising from the use of benchtop hot plates without exhaust fan activation or use of an ineffective extraction, are not covered under warranty | | | | | | | | | | | | | | | |
| Ⓜ DO NOT expose to humidity fluctuations | Claims arising from damage due to hot objects, such as saucepans or irons, contacting the decorative surface, are not covered under warranty | | | | | | | | | | | | | | | |
| Ⓜ DO NOT expose to humidity fluctuations | Claims arising from bow, warp or twisting are not covered by warranty | | | | | | | | | | | | | | | |
| | Claims arising from surface imperfections attributable to painting or other non-thermoforming applications, are not covered under warranty | | | | | | | | | | | | | | | |
| Ⓜ ONLY use Ultracraft single sided panels for thermoforming | Claims arising from the use of alternative substrate materials for thermoforming applications, are not covered under warranty | | | | | | | | | | | | | | | |
| | Claims arising from panel bow tolerances outside the manufacturing guidelines of ±3mm, are not covered under warranty | | | | | | | | | | | | | | | |
| Ⓜ ONLY use storage and stock control methods that protect against environmental effects or aging products | Claims arising from the loss of balancing bow due to prolonged flat storage and or environmental conditions, are not covered under warranty | | | | | | | | | | | | | | | |
| | Claims arising from surface imperfections or panel bow attributable to trench rout depths more than 6mm, are not covered by warranty | | | | | | | | | | | | | | | |
| Ⓜ DO NOT trench rout deeper than 6mm into the panel face | Claims arising from pocket routed door designs of dimensions that result in 30% or more of the total panel volume being removed, are not covered under warranty | | | | | | | | | | | | | | | |
| Ⓜ DO NOT remove 30% or more of total panel volume | Claims arising from surface imperfections or panel bow attributable to frame widths less than 60mm, are not covered by warranty | | | | | | | | | | | | | | | |
| Ⓜ DO NOT use pocket routed door designs with a frame width less than 60mm | Claims arising from bow, warp or twisting due to too few hinges or inappropriate door sizes or weights, are not covered under warranty | | | | | | | | | | | | | | | |
| Ⓜ ONLY use recommended hinge quantities | <table border="1"> <thead> <tr> <th>Door Height (mm)</th> <th>Door Weight (Kg)</th> <th>No. of Hinges</th> </tr> </thead> <tbody> <tr> <td>≤ 900 mm</td> <td>≤ 9 Kg</td> <td>2</td> </tr> <tr> <td>≤ 1600 mm</td> <td>≤ 15 Kg</td> <td>3</td> </tr> <tr> <td>≤ 2000 mm</td> <td>≤ 19 Kg</td> <td>4</td> </tr> <tr> <td>≤ 2400 mm</td> <td>≤ 23 Kg</td> <td>5</td> </tr> </tbody> </table> | Door Height (mm) | Door Weight (Kg) | No. of Hinges | ≤ 900 mm | ≤ 9 Kg | 2 | ≤ 1600 mm | ≤ 15 Kg | 3 | ≤ 2000 mm | ≤ 19 Kg | 4 | ≤ 2400 mm | ≤ 23 Kg | 5 |
| | Door Height (mm) | Door Weight (Kg) | No. of Hinges | | | | | | | | | | | | | |
| | ≤ 900 mm | ≤ 9 Kg | 2 | | | | | | | | | | | | | |
| | ≤ 1600 mm | ≤ 15 Kg | 3 | | | | | | | | | | | | | |
| | ≤ 2000 mm | ≤ 19 Kg | 4 | | | | | | | | | | | | | |
| ≤ 2400 mm | ≤ 23 Kg | 5 | | | | | | | | | | | | | | |
| Ⓜ ONLY use large one-piece pocket routed door and panel designs with a central rail or split door configuration | Claims arising from bowing, twisting or warpage due to a lack of structural design integrity or the omission of either a central rail or split door construction, are not covered under warranty | | | | | | | | | | | | | | | |
| Ⓜ DO NOT cut door or panel designs counter to the functional direction of the induced bow | Claims arising from bowing, twisting or warpage due to cutting pattern configurations opposed to induced bow directionality, are not covered under warranty | | | | | | | | | | | | | | | |
| Ⓜ DO NOT install converted components with unsealed edges | Claims arising from the effect of heat or moisture ingress attributable to unsealed or poorly sealed edges, are not covered under warranty | | | | | | | | | | | | | | | |

Ⓜ Denotes specific warranty conditions apply