# **Polymer Panel Technical Data**

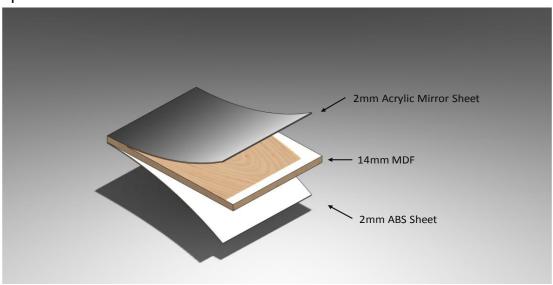


## **Acrylic Mirror**

## **Product Description**

EGR Décor Acrylic mirror sheet and laminated panels are a high quality and versatile solution where conventional glass mirror is impractical. EGR Décor Acrylic mirror can be fabricated and assembled like a conventional wood based panel, and features light weight and very high impact resistance compared to the equivalent glass mirror.

## **General Properties**



### **Sheet Specification**

Properties	Specifications	Test Method
Sheet Size	2440 × 1220 × 2mm (96" × 48" × 5/64" )	Steel Tape / Micrometer
Colour**	dE < 1.0 compare to master	AS/NZS 1580.600
Gloss**	>85%	AS/NZS 1580.602
Specific gravity	1.19	ASTM D-792
Water absorption	<0.5%	ASTM D-570
Tensile strength	67 MPa	ISO 527 (a)
Elongation at Yield	4%	ISO 527 (a)
Flexural strength	110 MPa	ISO 178 (b)
Flexural modulus	3,455 MPa	ISO 178 (b)
Pencil Hardness**	4H	ASTM D-3363
Erichsen Hardness**	0.6N (After 24 hrs. of peeling)	ISO 4586-2 (DIN EN 438-2)
HDT 264 PSI, 1.82MPa	89°C (192°F)	ASTM D-648
CTE, -30°C to 30°C	0.7mm/1000mm/10 °C (0.028"/39.4"/50°F)	ASTM D-696
Continuous service temperature	75°C (167°F)	Continuous
Heat Distortion Temperature	85°C (185°F)	ASTM D648

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#### **Board Specification**

Board Size	2440 × 1220 × 18mm ( 96" × 48" × 3/4")	AS/NZS 4266.2
Board Weight	13.5 kg/m <sup>2</sup> Typical ( 2.78lb/sq ft)	AS/NZS 4266.2
Environmental	MR TSCA TITLE VI MDF	N/A
Flammability		UL-94
Surface delamination	90 degree peel test	>90% Fiber split
Surface Quality of board face area up to 3.0 sq.m ( 32 sq ft ). Any specs, dimples or raised section will not be grouped closer than 100mm	6 specs <0.5mm ( 1/64" ) 6 dimples or raised section <3.0mm ( 1/8" ) No obvious die or flow lines No scratches or repeat marks.	Visual assessment in moderate lighting. Board viewed in vertical condition from a distance of 1000mm ( 39" ).
Dry Heat Resistance	No loss of gloss and colour change	AS/NZS 4266.26
Stain Resistance	No effect	AS/NZS 4266.25
Construction	Clear PMMA with Vacuum Metallized Evaporation Silver Mirror	N/A

<sup>\*\*</sup> Internally tested by EGR

#### **Applications**

EGR Décor Mirror sheet and panel have many applications such as cabinet faces, store fixtures, closet doors, feature panels and furniture surfaces. The panels are designed for any interior vertical surface and the panels can be edge finished in a variety of ways to suit the needs of the end application. EGR Décor Mirror sheet can be laminated to many different wood substrates using a variety of bonding methods. The laminated panels are bonded with high performance PUR adhesive and can be supplied double sided or with a textured ABS balancing layer.

#### **Chemical Resistance**

EGR Décor Mirror is an inert and very stable polymer and is resistant to the following substances: Windex, Kerosene, Mineral Turpentine (mineral spirits), lemon juice, Vinegar, Coffee, Soaps and most mild household cleaners. EGR Décor Mirror should not be exposed to the following substances: Acetone, Methylated Spirits, Abrasive Cleaners, and aggressive solvents such as MEK or Toluene.

#### Lamination

EGR Décor Mirror sheet can be laminated to a variety of substrates. Best results will be achieved using PUR adhesive applied through an automated lamination process. Other adhesives such as liquid PUR cross linked EVA or water based contact adhesives can also be used for less technical applications. Typical substrates for laminated panels include MDF, HDF and Plywood.

## Care and Maintenance

For general cleaning use warm soapy water and a clean microfiber cloth. Liquid dishwashing detergent is an ideal cleaner. For scratches and scuffs the face of the gloss panels can be refinished using liquid polishes suitable for acrylic and a clean microfiber cloth. Manual or machine buffing are both effective. Care must be taken with machine buffing to not overheat the material so a slow buffing speed is desirable.

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#### **Fabrication**

Laminated panels can be cut, drilled and shaped using normal woodworking tools and machinery. Best results will be achieved using sharp carbide tipped tools that are designed to remove swarf quickly. Panels should always be clamped or secured firmly during fabrication to avoid vibration and potential for chipping. The face protective film should be left in place throughout the fabrication and installation process. Panels should be fixed at a maximum of 300 mm (12'') centers for all drawer fronts end panels and other cladding. Cabinet Doors should have hinges placed at no greater than 400 mm (16 '') centers.

#### Warranty

EGR DÉCOR Mirror sheet and panels are for vertical use only and are covered by a 7 year indoor warranty for Residential use and 3 year indoor warrnaty for commercial / store fixture use.

### **Fire Properties**

Joinery, fittings and furniture are generally exempt from fire performance criteria with most international building standards.

Building specifiers should always consult with qualified building professionals to ensure that the material is suitable and compliant for the chosen application as per local building code requirements.

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