

TECHNICAL DATA SHEET (TDS)

For Neboard Decorative Surface Panels – Embossed Design

1. Product Description

Thermo-laminated decorative surface panel manufactured by applying decorative foil on HIPS (High Impact Polystyrene) via hot lamination. Designed for interior use, this product adds depth, contrast, and visual focus to any environment through its dimensional surface effect.

2. Areas of Application

- Wall and ceiling coverings
- Integrated furniture surfaces (cabinet fronts, wall units, etc.)
- Suitable for use in:
 - Retail stores
 - Cafes & restaurants
 - Homes
 - Offices
 - Hotels
 - Caravans and mobile interiors
- Recommended for areas where visual impact, surface depth, or contrast is desired

3. Material Composition

- Base Material: HIPS (High Impact Polystyrene)
- Surface: Decorative foil laminated with heat and pressure
- Surface Finish: Embossed, smooth, or textured depending on model

4. Panel Dimensions

Panel Size (mm)	Thickness (mm)
2800 × 1000	2–5 mm (design-based)
2400 × 1000	2 mm
2400 × 1200	3 mm

5. Base Material: HIPS 825E – Technical Properties

(Tested on 1 mm thickness)

Properties	Value	Standard
Melt Flow Rate (200°C, 5 kg)	4.0 g/10 min	ASTM D1238
Tensile Strength	20 MPa	ASTM D638
Tensile Elongation	44%	ASTM D638
Tensile Modulus	2090 MPa	ASTM D638
Flexural Modulus	1923 MPa	ASTM D790
Flexural Strength	39 MPa	ASTM D790
Izod Impact Strength (notched, 23°C)	135 J/m	ASTM D256
Heat Deflection Temp. (0.45 MPa)	92°C	ASTM D648
Vicat Softening Temperature	97°C	ASTM D1525
Flammability	HB75 (1.5 mm)	UL-94

6. Installation Guidelines

- Panels must be applied to clean, flat, dry substrates
- Suitable adhesives: MS polymer or polyurethane-based adhesives
- Cutting: Can be cut with woodworking tools (jigsaw, circular saw) or CNC routers. Cutting should always be done from the embossed side to preserve the surface form and avoid chipping or distortion.
- Fixing methods: Adhesive, mechanical fastening, or frame systems depending on substrate and use

7. Storage Conditions

- Store flat on a horizontal surface, in a dry and shaded indoor environment
- Avoid direct sunlight or extreme temperature fluctuations
- Recommended ambient temperature: 10–30°C
- Relative humidity: 40–65%

8. Maintenance Instructions

- Wipe clean with a soft, damp cloth
- Avoid abrasive cleaners or strong solvents

9. Environmental & Disposal

- HIPS is recyclable under standard local waste management systems
- Product is non-hazardous
- Disposal should comply with local regulations

10. Disclaimer

The technical values stated are based on typical test results and should not be interpreted as guaranteed specifications. Actual performance may vary based on installation, usage, and environmental factors. It is the responsibility of the end user to test product suitability for their specific application.