TECHNICAL DATA SHEET (TDS)

For Neboard Decorative Surface Panels – Leather Design

1. Product Description

Thermo-laminated decorative surface panel consisting of a high-impact polystyrene (HIPS) base with synthetic leather laminated on top. Developed for interior use, this panel provides a rich, tactile aesthetic and dimensional depth. It is ideal for design-driven environments where surface texture and softness are desired.

2. Areas of Application

- Wall and ceiling coverings
- Integrated furniture surfaces (cabinet fronts, wall units, etc.)
- Suitable for use in:
  - Residential interiors
  - Commercial spaces (offices, retail)
  - Hospitality (hotels, cafes, restaurants)
  - Caravans and mobile interiors
- Suitable for creating warm, soft-touch and luxurious visual effects

3. Material Composition

- **Base Material:** HIPS (High Impact Polystyrene), 1 mm thick
- **Surface Finish:** PVC and PU based synthetic leather laminated using hot-melt adhesive
- **Texture:** Matt, grainy, or embossed leather appearance depending on variant

4. Panel Dimensions

Panel Size (mm)	Thickness (mm)
3000 × 1300 mm	2 – 3 mm (design-based)

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

ÜNMAR İç ve Dış Tic. San. Ltd. Şti.
Fikirtepe Mah.Özbey Cad. No:63 34720 Kadıköy / İSTANBUL / TÜRKİYE
T.+90 216 326 12 13 | info@unmar.com.tr | www.unmar.com.tr

6. Surface Material: Synthetic Leather Technical Properties

Properties	Value	Standard
Total Weight	500 ± 10% g/m²	TS 1534-2 / EN ISO 2286-2
Thickness	1.30 ± 10% mm	TS 1534-2 / EN ISO 2286-3
Tensile Strength	Horizontal: 280 (95%) N Vertical: 250 (60%) N	TS EN ISO 1421:1998
Tear Strength	Horizontal: 95 N Vertical: 75 N	TS EN ISO 4674-1
Martindale Abrasion	50,000 RUB	TS EN ISO 12947-2
Light Fastness	5 bw	ISO 4892-2:2006
Rubbing Fastness	Wet/Dry = 5 gs	TS EN ISO 11640 / 105X12
Flexing Endurance	100,000 flx	TS EN ISO 5402
Composition	%3 PU, %73 PVC, %24 Waterjet (Polyester)	

7. Installation Guidelines

- Panels must be applied to dust-free, 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 be performed from the leather side to maintain edge quality and prevent surface lifting or delamination.
- Fixing methods: Adhesive, mechanical fastening, or frame systems depending on substrate and use

8. Storage Conditions

- Store flat on a horizontal surface, in a dry and shaded indoor environment
- Avoid contact with sharp objects that may damage the leather surface
- Avoid prolonged exposure to direct sunlight to maintain surface color
- Recommended ambient temperature: 10–30°C
- Relative humidity: 40–65%

9. Maintenance Instructions

- Clean gently with a soft cloth and mild soap solution
- Avoid abrasive cleaners or strong solvents

10. Environmental & Disposal

- HIPS core is recyclable under standard local waste management systems; synthetic leather surface may vary depending on composition
- Product is non-hazardous
- Disposal should comply with local regulations

11. 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.