



Technical Data Sheet (TDS)

Basekim UV Cured GRP Sheet Laminate

Product Description

Basekim UV Cured GRP Sheet Laminate is a high-performance, single-component, UV-curable glass-reinforced polyester laminate developed for advanced corrosion protection systems.

This product is specifically designed as a **non-metallic cladding solution** to protect insulation materials and effectively mitigate **Corrosion Under Insulation (CUI)**—a major issue that causes significant maintenance costs across industrial sectors.

The laminate consists of premium polyester resins, high-grade fillers, and chopped strand glass fibers, providing excellent mechanical strength, chemical resistance, and long-term durability.

Key Features

- Single-component system (ready to use)
 - UV curing technology for fast installation
 - Low water vapor permeability
 - Excellent chemical and temperature resistance
 - High impact and mechanical strength
 - Strong adhesion to a wide range of substrates
 - Class 1 fire rating
 - UV stable – no additional topcoat required
 - Seamless and uniform finish
 - Low maintenance with extended service life
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Applications

- Corrosion protection of insulated pipelines
 - Oil & gas facilities
 - Petrochemical plants and refineries
 - Marine and offshore environments
 - Industrial insulation cladding systems
 - Thermal and cryogenic insulation protection
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Application Method

1. Ensure the surface is clean, dry, and properly prepared
2. Remove the inner protective film
3. Apply the GRP laminate onto the substrate
4. Use a roller to eliminate air bubbles and ensure adhesion
5. Maintain a minimum overlap of 50 mm
6. Expose the material to UV light for curing

For Metal Surfaces:

- Prepare surface to SA 2.5 standard
- Apply suitable primer
- Install GRP laminate over primed surface



Typical Technical Properties

Property

Thickness

Tensile Strength

Compression Strength

Flexural Strength

Flexural Modulus

Impact Resistance

Hardness

Elongation at Break

Operating Temperature

Heat Distortion Temperature

Flash Point

Weight

Water Vapour Permeance

Water Vapour Transmission

(All values based on ASTM and ISO standards)

Value

1.7 – 1.9 mm

54 MPa

>200 MPa

130 N/mm²

9214 N/mm²

62 kJ/m²

>60 Barcol

3%

0°C to 90°C

>100°C

34°C

2.8 kg/m²

0.001 g/m²/h/mmHg

0.023 g/m²/h/mm

Product Dimensions

- Standard Roll Size:
 - Length: 10 meters
 - Width: 920 mm

Curing Process

The curing time depends on:

- UV light intensity
- Environmental conditions

For quality control, hardness testing using a Shore or Barcol hardness tester is recommended.

Advantages

- Reduces long-term corrosion costs
- Cost-effective alternative to metal cladding
- Fast and simple installation
- Minimizes maintenance and downtime
- Provides long-lasting protection in harsh environments