SOLIDKOTE MATRIX 30LV

Low Viscosity Laminating Epoxy System

Solidkote Matrix 30LV resin system is designed for the manufacturing of composites. Suitable for lay-up composites as well as infusion / resin transfer moulding. The choice of fast and slow hardeners gives the user the opportunity to streamline the composite manufacturing process. The Solidkote Matrix 30LV system is designed to give excellent mechanical properties for demanding applications.

BENEFITS:

Good chemical resistance.

Excellent mechainical strength. Highly durable with good wear resistance.

High bond strength.

Easy to apply,

Quick turn around and sandability

Room temperature curing

Low odour and solvent free

TECHNICAL DETAILS		
Compressive Strength	>90 MPa	ISO 604:2002
Tensile Strength	>60 MPa	ISO 527-2:1993
Flexural Strength	>90 MPa	ISO 178:2003
Concrete Adhesion	>1.5 MPa (Concrete failure)	ASTM D7234
Hardness	80	Shore D
Water Uptake (Permeability)	Nil	Karsten Test
Solids Content	100%	
Pot Life	Standard Set (SS) 60 to 70 min @25°C	
	Fast Set (FS) 20 to 25 min @25°C	
Tack Time	SS: 2 to 6 hrs FS: 1 to 3 hrs	
Full cure	5 to 7 days	
Components	2 (epoxy and hardener)	
Mix Ratio	Mix as supplied (SS or FS) 100:25 by weight 100:30 by volume	
Mixed Viscosity	SS: 400 to 500 CPs FS: 300 to 500 CPs	
PACKAGING (Resin with choice of hardener)		
Resin	5 kg (Epoxy)	
SS Hardener	1.25 kg	
FS Hardener	1.25 kg	
Total Kit	6.25 kg	

TECHNICAL DATA SHEET

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10 November 2022

APPLICATIONS:

- Laminating glass fibre, carbon fibre
- Infusion moulding
- Lay-up laminating
- Surfboard and composite manufacturing
- Table tops
- Encapsulation etc.

SUBSTRATE REQUIREMENTS

Polystyrene

Polystyrene blanks should be primed and sealed with S-FILL.

Wood

Wooden substrates are to be suitably sanded, existing coatings are to be removed. Sweep dust and loose debris followed by vacuuming, to obtain a dry and dust-free surface.

Concrete

Concrete substrates must have a minimum compressive strength of 20 to 25 MPa, a minimum tensile pull-off strength of 1.5 MPa and be free of oil, fat, grease, dust, and loose friable materials. The moisture content should be less than 5% and free from rising damp.

Note: Any filling of blowholes/voids and surface levelling of substrate can be achieved using appropriate products within Technical Finishes Construction Range (please speak to one of our technical sales representatives).

PREPARATION

Remove all previous coatings, (including un-bonded concrete) and laitance mechanically through diamond grinding, abrasive blasting or scarifying to obtain a sound and porous surface (sandpaper texture). Sweep dust and loose debris followed by vacuuming, to obtain a dry and dust-free surface.

MIXING & APPLYING

Ensure application conditions of 15 to 28°C

Mixing

Slowly add the Part 2 into Part 1 and stir thoroughly for 2 to 3 minutes. Mix with smooth and slow movements to avoid the incorporation of air. Ensure the mixing paddle scrapes the sides of the mixing vessel.

Placing

Pour the entire mix onto the surface and brush, roll or squeegee out to the required thickness. A spike roller can be used to assist with levelling and de-aeration. Using a mohair roller, back-roll the first coat to work the product into the substrate. Lightly sand (80 to 120 grit) to remove any projections and to ensure a smooth finish. Vacuum the substrate and wipe down with a damp cloth to remove all traces of dust on the surface before applying subsequent coats. A second coat may be applied once the first coat is thoroughly touch dry (4 to 12 hrs), and within 18 hrs.

Alternatively one thick coat can be applied if the surface does not need to be primed with the first coat to seal any pores.

WATCH POINTS:

Adhere to mix ratios as supplied. If partial batches are mixed do not mix less than at total of 150 mL, to ensure complete mixing. Do not thin with water or solvent. Equipment should be washed with epoxy thinners before product has hardened, once hardened it can only be removed mechanically.

MAINTENANCE

Regular cleaning extends the service life of the Solidkote Matrix 30LV coating. Maintenance is to be carried out using Liquid Action which complies with SANS 1344 Medium Duty Solvent Detergent (2112/P3325/10/ID). If a double headed rotary scrubber drier is used, a soft pad is recommended. Damaged areas of the system should be patch repaired to ensure longevity of the working area.

WARRANTY

Technical Finishes products are manufactured under high quality standards and are warranted against defective materials and are sold subject to standard Terms and Conditions of Sale, copies of which can be obtained upon request. Technical Finishes deals with approved applicators and carry a back to back warranty with these clients. Technical Finishes cannot be held responsible for the workmanship in surface preparation and application of our products, it is understood that the approved contractor will guarantee such workmanship and application. It is vital that the application is done in accordance to our specification.