

	VITAL TECHNICAL SDN. BHD.	  	Issued date : 31/03/2008
	Technical Data Sheet		Rev. No. : 21-01
	VT-504 FRC Epoxy Adhesive		Revised date : 1/08/2021
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Product Description

VT-504 is specially designed for the adhesion of fibre-reinforced cement board. The epoxy has high mechanical strength, resistant towards water and most chemicals, together with reliable heat resistance. It can be sanded and will not crack if drilled.

Features

- 100% solid, no solvents
- Non-shrinking
- Good resistance against water and solvents

Applications

Suitable for bonding cement boards, metal, wood, plastic, china, ceramics, tools, and glassware. Not suitable for bonding of polyethylene, polypropylene, PTFE and other flexible materials.

Directions

Surface preparation

1. Surfaces must be blown with pressurised air to ensure that the surface is cleared from most dusts. Surface may be dry or damp, but free of standing water.
2. Use solvent to wipe off any dust, dirt, grease, oil or water.

Mixing

1. Prepare component A and component B according to 2:1 ratio (by weight) and mix thoroughly for 3 minutes until a uniform grey color is observed.
2. Mix using a low speed drill (200 - 400 rpm) fitted with screw type paddle.

Application

1. After mixing, apply mixture within the working time. Apply by trowel, serrated spreader, spatula or stiff brush.
2. Support the bond for 10 - 12 hours at room temperature.
3. Handling strength achieved in 10 - 12 hours and full cure strength in 48 hours.
4. Clean up uncured material and equipment immediately after use with warm soapy water, or alternatively, with thinner.
5. Wash hands thoroughly with an industrial hand cleaner.
6. Cured VT-504 can only be removed by mechanical means.

Caution

Contains epoxy resin, and polyamine hardener. May cause severe eyes and skin irritation. Avoid prolonged contact with eyes or skin. In case of contact with eyes, flush with water for 15 minutes and seek medical attention immediately. In case of skin contact, wipe off and wash with soap and water. Use in well ventilated areas.

KEEP OUT OF REACH OF CHILDREN.

Storage

Store in a dry and cool place. Not damaged by freezing. If frozen, warm to room temperature.

Technical Data:

Typical Uncured Properties

Base	Part A :	Epoxy resin
	Part B :	Polyamine hardener
Appearance	Part A :	Black liquid
	Part B :	Off-white liquid

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Viscosity¹	Part A :	20,000 - 40,000 cPs
	Part B :	40,000 - 80,000 cPs
Density²	Part A :	1.55 - 1.65 g/mL (13.0 - 13.8 lb/gal)
	Part B :	1.55 - 1.65 g/mL (13.0 - 13.8 lb/gal)
Mix ratio (R:H) by weight	:	2:1
Mix ratio (R:H) by volume	:	2:1
Gel time (100 g)³	:	>60 minutes (depending on the adhesive amount and temperature)
Application temperature	:	15 - 35 °C (59 - 95 °F)
Time to handling strength	:	10 - 12 hours
Time to full strength	:	48 - 72 hours
Shelf life	:	24 months from day of delivery (if stored correctly)

Typical Cured Properties

Colour	:	Light grey
Shore D hardness (1 day)⁴	:	75 - 85
Single lap shear strength⁵	:	> 12 MPa

¹ Tested according to ASTM D2196 (LV4, 5 rpm).

² Measured according to modified ASTM D1875.

³ Tested according to DOTD TR 703-85 Method A.

⁴ Tested according to modified ASTM D2240 (Cylindrical sample; diameter = 51mm; thickness = 3mm).

⁵ Aluminium coupon prepared and tested according to ASTM D1002; surface treated according to ASTM D2651.

Order information

Code No.	Packaging size
VT-50430K	90 kg/set

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