

	VITAL TECHNICAL SDN. BHD.			
	Technical Data Sheet			
	VT-502 Panel Epoxy			

Issuance date: 13/10/2017

Revision date: 01/08/2021

Revision No.: 21-01

VT-502 Panel Epoxy

APPEARANCE

Grey color (Resin)
Black color (Hardener)

Color

Grey (After mixing)

PACKAGING

2.0 kg / set
(Resin 1.34 kg / can
Hardener 660 g / can)

5.0 kg / set
(Resin 3.33 kg / pail
~ 4 pails / carton
Hardener 1.67 kg / can
~ 12 cans / carton)

SHELF LIFE

24 months

STORAGE

Provided the adhesive is stored dry and cool in airtight containers, the storage stability will be at least 24 months (before mixing) from day of delivery.

APPLICATION TEMPERATURE

20 °C – 40 °C

DESCRIPTION



VT-502 Panel Epoxy is a solvent-free, thixotropic 2-component adhesive and repair mortar, based on a combination of epoxy resins and specially selected high-strength fillers. It features high-strength, high-modulus, and moisture-tolerant properties for structural bonding purposes. Besides, its smooth texture allows it to be patched into gaps or holes of varying sizes more easily.

TECHNICAL DATA

Main ingredients	: Epoxy resin (Part A) : Polyamine hardener (Part B)	
Mixing ratio (Part A : Part B)	: 2:1 (by volume)	
Flexural strength	: 23.0 MPa	ASTM C580
Compression strength	: 54.0 MPa	ASTM C579
Shore D hardness (Cylindrical sample; diameter = 51 mm; thickness = 3 mm)	: 60 – 80	ASTM D2240
Working time at 25 °C	: ~45 minutes	
100% curing time at 25 °C	: 24 hours	
Solid content	: 100%	

APPLICATION




Bonding tongue and groove and sealing butt joint of lightweight wall panels and prefabricated concrete bridge segments. Reinforce structural bonding of concrete, masonry, metals, wood, anchoring of grout bolts, dowels, vertical and overhead. As a patching mortar for concrete, stone, ceramics, mortar, plasterwork, steel, iron, aluminium, wood, wood-fibre chip board, asbestos cement, polyester, epoxy and glass. Repair of joint corners and be a rigid connection of narrow joint.

ADVANTAGES

- Smooth texture, easy patching into wall butt joint of varying sizes
- Conjoining lightweight wall panels with high mechanical strength
- Prevent surface cracks along the joint line caused by slight movements or vibrations
- Application on dry or damp concrete surfaces
- Can be applied on vertical and horizontal surfaces
- Good workability and excellent adhesive strength to various materials
- Non-flammable
- Fast curing
- High abrasion and impact resistance
- Excellent toughness
- Excellent chemical resistance
- Shrinkage free
- Component of different colors, therefore good control of homogeneity during mixing

APPLICATION DIRECTION

1. Surfaces must be clean, free of dirt, grease, oil and other surface contaminations. It may be dry or damp, but free of standing water.
2. Concrete should be cleaned and prepared by mechanically abrade the surface with a needle gun, wire brush, sandblast or grind. For metal surface, it should be cleaned thoroughly by blast cleaning and where required, apply the primer before application.
3. Do not mix each of the Panel Epoxy set partially. Prepare Part A (Resin) and Part B (Hardener) according to 2:1 ratio and mix thoroughly for 3 minutes until a uniform grey color is observed.
4. After mixing, apply mixture within 45 minutes before cure. Apply by trowel, serrated spreader, spatula or stiff brush (minimum thickness per layer 1 mm and maximum thickness per layer 30mm, on vertical it is non-sag up to 10 mm thickness).
5. Work Panel Epoxy well into the substrate, especially if the substrate is damp. Bond any subsequent materials onto Panel Epoxy whilst it is still tacky.

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APPLICATION DIRECTION (Cont.)

6. To install lightweight wall panels, apply Panel Epoxy evenly into the groove line of the tongue & groove configurations. Before it cures, conjoin the wall panels together accordingly and remove the excess that oozes out. After that, patch Panel Epoxy into the butt joint between wall panels with spatula. Make sure the butt joint is fully filled with Panel Epoxy so it can be in full contact with the joint substrates. Remove the excess and flush the butt joint neatly before it cures.
7. Clean up uncured material and equipment immediately after use with warm soapy water, or alternatively, with thinner. Wash hands thoroughly with an industrial hand cleaner. Cured Panel Epoxy can only be removed by mechanical means.

Important notes:

- Minimum age of the new concrete shall be between 3 to 6 weeks depending on the climate, for mortar application.
- Do not thin the product. Addition of solvent will prevent proper cure.
- Not resistant to high temperature of prolonged periods.
- Not for sealing cracks under hydrostatic pressure at time of application.
- Layer thickness:
 - Minimum 1 mm
 - Maximum 30 mm
 - Non-sag on vertical surfaces up to 10 mm

CAUTION

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

LEGAL NOTES

Every endeavour has been made to ensure that the information given herein is true and reliable but it is given only for the guidance of our customers. The company cannot accept any responsibility for the loss or damage that may result from the use of the information, due to the possibility of variations of processing or working conditions and of workmanship outside our control. Users are advised to confirm suitability of this product by their own tests.