



VITAL TECHNICAL SDN. BHD.

Technical Data Sheet

**VT-138 / VT-195
Rapid Steel Putty**



Issuance date: 31/03/2008

Revision date: 27/05/2021

Revision No.: 21-01

Product Description

A hand-mixable, steel-reinforced, epoxy putty that mixes in just one minute to provide fast repairs to items made of ferrous and aluminium metals. It comes in a handy “tootsie-roll” form, contains pre-measured portions of activator and base throughout with the curing agent (activator) encapsulated in the consistency eliminates drips and runs, providing “no mess” applications with no tools required for use. It cures to a dark grey metallic colour. Once cured, it can be tapped, drilled, screwed, sawed, machined, ground, filed or painted. It will not rust, shrink or pull away. It is resistant to water, temperature extremes, and chemicals such as hydrocarbons, ketones, alcohols, esters, halocarbons, aqueous salt solutions and dilute acids and bases.



Features

- Fast setting
- Work on all metals
- Paintable
- Instant bonding and superior strength

Applications




Ideal to repair ferrous metals, rebuild small engine parts, fill cracks and voids in metals, seal leaks, form nuts & bolts, repair stripped threads, form anchor machines, repair metal tools, equipment ducts, pipes, housing & appliances, sink traps and auto bodies. Also bonds to wood, glass, masonry and many plastics. Suitable for interior and exterior use.

Directions

1. Before applying, roughen and clean the area to be repaired.
2. Cut or twist off required amount.
3. Mix by kneading with fingers to a uniform colour. If mixing is difficult, warm the epoxy putty to room temperature or slightly above, or use damp fingers for easier mixing and application.
4. As the epoxy putty is mixed, the two contrasting colours blend into one colour to indicate complete mixing.
5. Apply to surface to be repaired (within 2 minutes of mixing).
6. Force into any cracks or holes and strike off excess material before hardening begins, preferable with a tool wet with clean water.
7. When applying to a damp, wet or slowly leaking area, work the material forcefully into the surface and apply pressure until adhesion begins to take effect.

Caution

Contains epoxy resin and tri (dimethylaminomethyl) phenol. May produce an allergic reaction. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful to aquatic life with long lasting effects. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash hands, forearms and face thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Keep out of reach of children. Safety data sheet available on request. For further health and safety information, consult the latest safety data sheet.

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Storage

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

Technical Data:

Typical Uncured Properties

Base	Part A :	Epoxy resin
	Part B :	Polymercaptan hardener
Appearance	Part A :	Grey paste
	Part B :	Black paste
Specific Gravity¹	:	2.2 g/mL
Working time (10 g, 25 °C)²	:	5 minutes (depending on the adhesive amount and temperature)
Application temperature	:	15 - 35 °C (59 - 95 °F)
Time to handling strength	:	2 hours
Time to full strength	:	24 hours
Shelf life	:	24 months
Temperature resistance	:	120 °C (continuously)
Non-volatile content	:	100%

Typical Cured Properties

Colour	:	Dark grey
Shore D hardness (1 day)³	:	80
Single lap shear strength⁴		
- Steel	:	6.2 N/mm
Compressive strength	:	55 N/mm ²
Electrical resistance	:	30,000 MΩ
Dielectric strength	:	300 V/mil

¹ Measured according to modified ASTM D1875.

² Tested according to DOTD TR 703-85 Method A.

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

⁴ Aluminium coupon prepared and tested according to ASTM D1002; surface treated according to ASTM D2651.

Order information

Code No.	Packaging size
VT-138	50 g/pack
VT-13850	50 g/tube
VT-138100	100 g/tube
VT-195	28.4 g (1 oz.)/pack

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