


 A member of 	<b>VITAL TECHNICAL SDN. BHD.</b>	 
	<b>Technical Data Sheet</b>	
	<b>VT-141 / VT-147 / VT-192V Rapid 3 Ton 4 Minutes Epoxy</b>	

Issuance date: 31/03/2008

Revision date: 20/06/2025

Revision No.: 25-01

## Product Description

A rapid setting, general purpose, 1:1 mix ratio epoxy adhesive. It exhibits a remarkable combination of properties; fast setting, good resistance towards water, most solvents and automotive oils. It can be used as an adhesive on various substrates, to fill gaps and surface repairs. It does not shrink upon curing and does not crack if drilled. It cures clear can be handled after an hour.

## Features

- 100% solid, no solvents
- Non-shrinking
- Fast setting
- Rapid strength development
- Good resistance against solvents and common automotive oils

## Applications

Suitable for bonding 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 clean and dry.
2. Use solvent to wipe off any dust, dirt, grease, oil or water.
3. Roughen or abrade smooth surfaces to improve the adhesion strength.

### Mixing

1. Puncture tube with the cap and squeeze out equal amounts of resin and hardener on any disposable container or surface.
2. Mix thoroughly for one minute with the mixing stick provided.

### Application

1. Apply a small amount of the adhesive on both surfaces immediately after mixing thoroughly, before it starts to gel.
2. Press together and wipe off any excess epoxy with acetone.
3. Support the bond for 15 - 30 minutes at room temperature.
4. Handling strength achieved in one hour and full cure strength in 6 hours.

## Caution

Contains epoxy resin, polyamine and polymercaptan 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.



Scan to learn how to use



Visit product page:

<https://www.vitaltechnical.com/product/epoxy-adhesive-and-putty/?vt=vt-141-vt-147-vt-192v-rapid-3-ton-4-minutes-epoxy>



# VITAL TECHNICAL SDN. BHD.

## Technical Data Sheet

**VT-141 / VT-147 / VT-192V**  
**Rapid 3 Ton 4 Minutes Epoxy**



Issuance date: 31/03/2008

Revision date: 20/06/2025

Revision No.: 25-01

### Technical Data

#### Typical Uncured Properties

<b>Base</b>	<b>Part A</b> : Epoxy resin
	<b>Part B</b> : Polymercaptan hardener
<b>Appearance</b>	<b>Part A</b> : Clear liquid
	<b>Part B</b> : Slightly yellowish clear liquid
<b>Viscosity<sup>1</sup></b>	<b>Part A</b> : 6,000 - 12,000 cPs
	<b>Part B</b> : 9,000 - 15,000 cPs
<b>Density<sup>2</sup>:</b>	<b>Part A</b> : approximately 1.16 g/mL (9.7 lb/gal)
	<b>Part B</b> : approximately 1.13 g/mL (9.4 lb/gal)
<b>Mix ratio (R:H) by weight</b>	: 1:1
<b>Mix ratio (R:H) by volume</b>	: 1:1
<b>Working time (10 g, 25 °C)<sup>3</sup></b>	: 3 minutes (depending on the adhesive amount and temperature)
<b>Set time</b>	: 4 minutes
<b>Application temperature</b>	: 15 - 35 °C (59 - 95 °F)
<b>Time to handling strength</b>	: 1 hour
<b>Time to full strength</b>	: 6 hours
<b>Exotherm</b>	: 100 - 130 °C (212 - 266 °F)
<b>Shelf life</b>	: 24 months from day of delivery (if stored correctly)

#### Typical Cured Properties

<b>Colour</b>	: Clear to slightly yellowish
<b>Shore D hardness (1 day)<sup>4</sup></b>	: 75 - 85

#### Rate of strength build up, single lap shear strength (anodised aluminium, etched)<sup>5</sup>

- 1 hour	: ~30% full strength, 4.2 ± 0.7 N/mm <sup>2</sup> (609 ± 101 psi)
- 4 hours	: ~90% full strength, 12.1 ± 0.8 N/mm <sup>2</sup> (1755 ± 116 psi)
- 6 hours	: 13.0 ± 0.4 N/mm <sup>2</sup> (1885 ± 58 psi)
- 1 day	: 13.1 ± 0.6 N/mm <sup>2</sup> (1900 ± 87 psi)
- 14 days	: 13.0 ± 0.5 N/mm <sup>2</sup> (1885 ± 72 psi)
- 28 days	: 13.2 ± 0.3 N/mm <sup>2</sup> (1914 ± 44 psi)

#### Solvent resistance, single lap shear strength (anodised aluminium, etched)<sup>5</sup>

7 days RT cure, immersion for 7 days

- Isopropanol	: 8.4 ± 0.6 N/mm <sup>2</sup> (1218 ± 87 psi)
- Acetone	: 8.8 ± 0.6 N/mm <sup>2</sup> (1276 ± 87 psi)
- Petrol	: 10.8 ± 1.1 N/mm <sup>2</sup> (1566 ± 160 psi)
- Motor oil	: 12.3 ± 1.0 N/mm <sup>2</sup> (1784 ± 145 psi)

#### Water resistance, single lap shear strength (anodised aluminium, etched)<sup>5</sup>

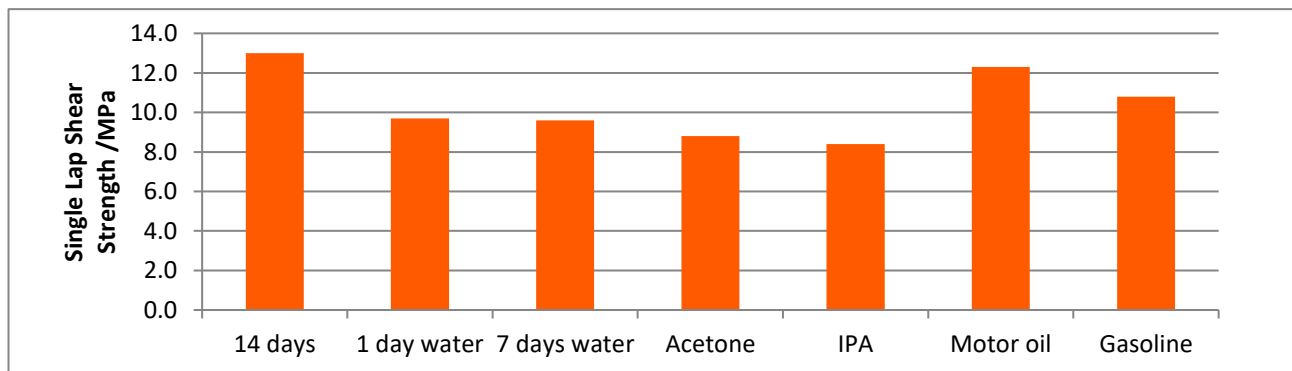
7 days RT cure

- 1 day immersion	: 9.7 ± 0.6 N/mm <sup>2</sup> (1406 ± 87 psi)
- 7 days immersion	: 9.6 ± 0.8 N/mm <sup>2</sup> (1392 ± 116 psi)

Issuance date: 31/03/2008

Revision date: 20/06/2025

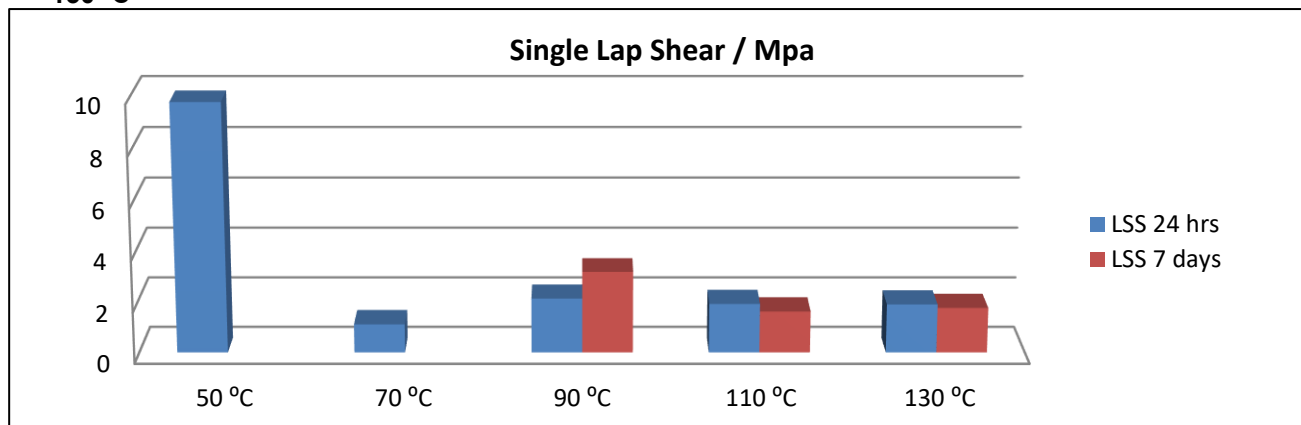
Revision No.: 25-01


**Heat resistant, single lap shear strength (anodised aluminium, etched)<sup>5</sup>**
**24 hours RT cure**

- 50 °C	: 9.8 ± 0.7 N/mm <sup>2</sup> ( 1421 ± 101 psi )	Shore D	: 40
- 70 °C	: 1.1 ± 0.4 N/mm <sup>2</sup> ( 159 ± 58 psi )	Shore D	: 23
- 90 °C	: 2.1 ± 0.7 N/mm <sup>2</sup> ( 304 ± 101 psi )	Shore D	: 24
- 110 °C	: 1.9 ± 0.6 N/mm <sup>2</sup> ( 275 ± 87 psi )	Shore D	: 19
- 130 °C	: 1.9 ± 0.7 N/mm <sup>2</sup> ( 275 ± 101 psi )	Shore D	: 14

**7 days RT cure**

- 90 °C	: 3.2 ± 0.5 N/mm <sup>2</sup> ( 464 ± 72 psi )	Shore D	: 24
- 110 °C	: 1.6 ± 0.6 N/mm <sup>2</sup> ( 232 ± 87 psi )	Shore D	: 20
- 130 °C	: 1.8 ± 0.2 N/mm <sup>2</sup> ( 261 ± 29 psi )	Shore D	: 16



<sup>1</sup> Tested according to ASTM D2196 (LV3, 5 rpm).

<sup>2</sup> Measured according to modified ASTM D1875.

<sup>3</sup> Tested according to DOTD TR 703-85 Method A.

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

<sup>5</sup> Aluminium coupon prepared and tested according to ASTM D1002; surface treated according to ASTM D2651.

## Product Information

Product Code	Content	Inner box	Outer Carton
VT-141	28.4 g (1 oz.) / pack	12	144
VT-141K8	1.8 kg / set	-	6 sets
VT-147	14 g / pack	12	288
VT-192V	6 g x 6	12	7

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 will not 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.

- END -