Product Specifications:

Appearance:	Black paste (Resin) Off-white paste (Hardener)
Viscosity at 25 °C: **(LV4, 0.5 rpm) ASTM 2196**	800,000 – 1,200,000 cPs (Resin) 200,000 - 350,000 cPs (Hardener)
Main ingredients:	Epoxy resin Polymercaptan hardener
Mixing ratio:	1:1 (by volume & weight)
Working time (10 g, 25 °C):	3 minutes (depending on the adhesive amount and temperature)
Packaging:	BS-8140 – 56.8gm BS-8144 – 20gm BS-8191 – 10gm x 6 BS-8193 – 10gm

Product Description:

A fast setting and non-shrinking and 1:1 mix ratio epoxy adhesive, it exhibits a remarkable combination of properties, high mechanical strength, excellent resistant to most chemicals and reliable heat resistance. It is easy to machine, non-conductive and can be handled after an hour.

Features :

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

Applications:

Bonds metal and metal alloys, casting, impregnating and potting system, gap filling, trimming bonding, crack casting or holes repair, tools, ornaments, knobs, ceramic, glassware, fiberglass repair etc.

Directions:

1. Surfaces must be clean, dry and free of dirt, grease, oil or water. Puncture tube with the cap.
2. Squeeze out equal amount of resin and hardener onto any discardable container.
3. Mix thoroughly and apply mixture to both surfaces before joining. Low heat will accelerate hardening.
4. Replace cap after use and store in a cool, dry place.

Typical Uncured Properties:

Base	:	Part A : Epoxy resin Part B : Polymercaptan hardener
Appearance	:	Part A : Black paste Part B : Off-white paste
Viscosity **ASTM D2196 (LV4, 0.5 rpm)**	:	Part A : 800,000 - 1,200,000 cPs Part B : 200,000 - 350,000 cPs
Density **ASTM D1875**	:	Part A : approximately 1.78 g/mL (14.8 lb/gal) Part B : approximately 1.78 g/mL (14.8 lb/gal)
Mix ratio (R:H) by weight	:	1:1
Mix ratio (R:H) by volume	:	1:1
Working time (10 g, 25 °C)	:	3 minutes (depending on the adhesive amount and temperature)
Set time	:	4 minutes
Application temperature	:	15 - 35 °C (59 - 95 °F)
Time to handling strength	:	1 hour
Time to full strength	:	24 hours

Exotherm : 60 - 80 °C (248 - 284 °F)

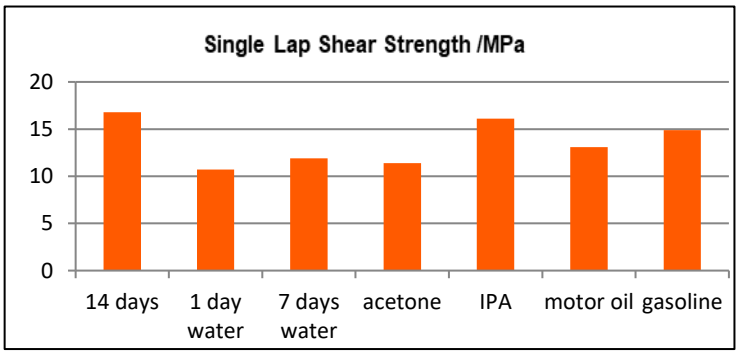
Typical Cured Properties:

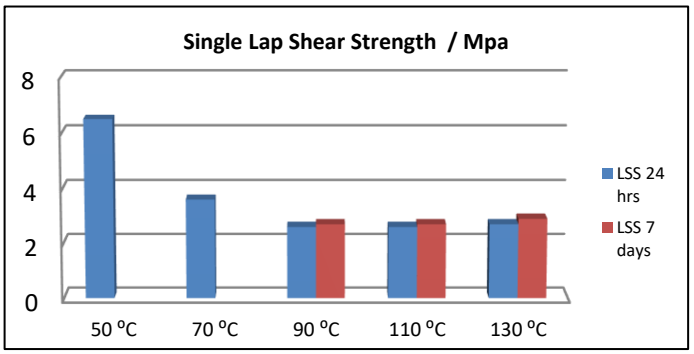
Colour : Dark grey
Shore D hardness (1 day) : 75 - 85
ASTM D2240

Rate of strength build up, single lap shear strength (anodised aluminium, etched)*
- **1 hour** : ~20% full strength, 2.9 ± 0.3 N/mm² (420 ± 44 psi)
- **4 hours** : ~50% full strength, 7.7 ± 0.6 N/mm² (1116 ± 87 psi)
- **16 hours** : ~90% full strength, 14.6 ± 0.9 N/mm² (2117 ± 130 psi)
- **1 day** : 16.2 ± 0.6 N/mm² (2349 ± 87 psi)
- **14 days** : 16.8 ± 0.7 N/mm² (2436 ± 102 psi)

Solvent resistance, single lap shear strength (anodised aluminium, etched)*
7 days RT cure, immersion for 7 days
- **Isopropanol** : 16.4 ± 0.6 N/mm² (2378 ± 87 psi)
- **Acetone** : 11.4 ± 1.0 N/mm² (1653 ± 145 psi)
- **Petrol** : 14.9 ± 0.3 N/mm² (2160 ± 44 psi)
- **Motor oil** : 13.1 ± 0.7 N/mm² (1900 ± 102 psi)

Water resistance, single lap shear strength (anodised aluminium, etched)*
7 days RT cure
- **1 day immersion** : 10.7 ± 1.3 N/mm² (1552 ± 188 psi)
- **7 days immersion** : 11.9 ± 1.9 N/mm² (1726 ± 276 psi)





Heat resistant, single lap shear strength (anodised aluminium, etched)*
24 hours RT cure

- **50 °C**	:	6.5 ± 0.6 N/mm² (942 ± 87 psi)	Shore D	: 64
- **70 °C**	:	3.6 ± 0.2 N/mm² (522 ± 29 psi)	Shore D	: 52
- **90 °C**	:	2.6 ± 0.2 N/mm² (377 ± 29 psi)	Shore D	: 50
- **110 °C**	:	2.6 ± 0.2 N/mm² (377 ± 29 psi)	Shore D	: 48
- **130 °C**	:	2.7 ± 0.2 N/mm² (391 ± 29 psi)	Shore D	: 46

7 days RT cure

- **90 °C**	:	2.7 ± 0.3 N/mm² (391 ± 43 psi)	Shore D	: 49
- **110 °C**	:	2.7 ± 0.3 N/mm² (391 ± 43 psi)	Shore D	: 44
- **130 °C**	:	2.9 ± 0.1 N/mm² (420 ± 14 psi)	Shore D	: 41

* Aluminum coupon prepared and tested according to ASTM D1002; surface treated according to ASTM D2651

Caution:

Contains epoxy resin 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.
Keep out of reach of children. Use in well ventilated areas.

Storage:

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

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