

Technical Data Sheet

K138 High performance Epoxy Adhesive System



DESCRIPTION:

K138 (Previously known as K2004) epoxy is a structural adhesive, exhibiting high temperature in-service performance and good metal bonding properties.

TYPICAL FEATURES | BENEFITS:

- Extreme condition performance.
- High temperature resistance.
- User friendly.
- Chemical resistant.
- Cure above +5°C.
- Bonds metals.
- Gap filling.

PERFORMANCE DATA:

Properties	Values
Minimum application temperature: Air	+5°C
Flash point:	~ Resin >110°C ~ Hardener >245°C
Lap Shear Strength:	~ Aluminium 17 ~ Brass 16 ~ Copper 18 ~ Galvanised Mild Steel 18 * (Degreased only – not abraded) ~ Mild Steel 21 ~ Stainless Steel 20
Maximum operating temperature:	+65°C
Adhesion Properties to correctly prepared surface:	~ Metal Excellent
Appearance:	~ Resin Beige Coloured Paste ~ Hardener Grey Coloured Paste
SG kg/litre:	~ Resin 1.7 ~ Hardener 1.7
Density Kg/Litre -cured:	1.7
Coverage:	Use as required: (0.001m ³ = 1 Litre) e.g. 1 litre covers 1m ² @ 1mm thick
Pot Life: (Usable Life) Pot life is based on 100gram samples. Large quantities of mixed epoxy will generate heat and the pot life may be significantly reduced.	+12°C– 50%RH 60 - 70 minutes +15°C– 50%RH 40 - 60 minutes +20°C– 50%RH 30 - 40 minutes
Cure Time:	+5°C –50%RH 72 hours +23°C –50%RH 24 hours +60°C –50%RH 1 hour
Clean up:	Wash hands with warm soapy water after any skin contact Solvent HA for tools
NZ Dangerous Goods Class:	~ Araldite AV138 Resin ~ HV998 Hardener Refer: SDS
Packaging:	~ Araldite AV138 Resin ~ HV998 Hardener 1 kg Kit
Shelf Life:	24 months from date of manufacture. (After this period consult with allnex).

RECOMMENDED USES:

- High temperature moulds.
- Industrial assembly operations.
- Bonds: Aluminium | Brass | Copper | Galvanised mild steel | Mild steel.

NOT RECOMMENDED:

- Application below +5°C air temperature.
- Application to incorrectly prepared surfaces.
- Bonding Polypropylene and polyethylene.

HEALTH & SAFETY: Refer safety data sheets (SDS).

- Wear gloves wherever possible.
- Wash hands with warm, soapy water after any skin contact.
- Re-seal all containers tightly.

SURFACE PREPARATION:

The surface to be filled/repared must be clean and sound.

Remove all dust, dirt, oil, scale, laitance, paint or any other contaminates.

Concrete: Acid etch | Shot blast | Diamond grind | Needle gun.

Metals: Degrease with Acetone > Abrade with medium grit abrasive paper > Degrease with Acetone again.

Timber: Prepare by way of mechanical sanding using 80 grit paper.

Composites: Degrease > Mechanically abrade > Degrease.

MIXING RATIO**K138 Mixing Ratio - By weight**

Element	Value
Resin	100 parts
Hardener	40 parts

K138 Mixing Ratio - By volume

Element	Value
Resin	100 parts
Hardener	40 parts

Refer: Cautions Section

The mix ratio must not be altered.

The mix ratio is the only acceptable formula.

Adding more hardener will make the mix softer and it will be uncured.

Increased hardener levels will result in a weaker product.

MIXING METHOD:

Carefully mix the product according to the stated mix ratio.

Mix until uniform and no streakiness is evident.

APPLICATION METHOD:

Notched Trowel | Spatula

Apply mixed adhesive.

Clamp surfaces together for curing period, or hold without movement for cure period.

CAUTION:

K138 is a two part epoxy that is mixed in the specified ratio. Only this ratio will produce a hard, non-softening product.

Adding more hardener (with the aim of making the product cure faster) will not work and will only result in making the product softer.

The more hardener that is added, then the softer it will become. No matter how long it is left, it will never harden.

Only the stated mix ratio will work and exhibit the stated heat resistance of +120°C.

Note

Inadequate mixing, incorrect mix ratios or movement before cure are the normal reasons for joint failure.

OTHER EPOXIES AVAILABLE:

- K36 - Clear Laminating Resin.
- K78 - Crack Repair.
- K80 - Pourable Grout.
- K83 – Machinable Epoxy Grout
- K102 - High Viscosity Mortar.
- K106 - Structural 24 hour Adhesive.
- K125 - Concrete Repair Paste.
- K130 - Control Joint Filler.
- K138- High Strength, Structural Heat Resistant Adhesive.
- K214 - General Purpose Adhesive
- K219- Structural 5 Minute Adhesive.
- K273- Underwater Cure Mortar.
- K2005 - High Peel Strength Structural Adhesive.
- Fairing Cream - Sandable Smoothing Paste.
- Truestik EA - Flexible Adhesive – Multipurpose.

EPOXY SELECTION:

Refer: Epoxy Selection Chart.

Date: August 2021

Replaces: Sept 2019

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