

Technical Data Sheet



K80 Pourable Epoxy Grout & Bonding System

DESCRIPTION:

K80 pourable grout is a fluid, high quality, high-strength epoxy. It can be readily mixed and poured in vertical holes or rolled onto flat concrete beds for slab bonding.

TYPICAL FEATURES | BENEFITS:

- Excellent adhesion to wet and dry concrete.
- Fluid mix.
- User friendly.
- Interior | exterior application.
- Tolerant to all site conditions.
- Resistant to dilute acids and alkalis.
- Complete resistance to Hydrogen Sulphide in both liquid and gas phase.
- Good low temperature cure make it ideal for use as a coating in difficult environments.
- Cure above +5°C.
- Bonds to metal | concrete | timber.
- High abrasion resistance.
- Flows into small crevices.
- All season use.
- Wet concrete can be placed directly onto wet K80.

PERFORMANCE DATA:

Properties		Values
Minimum application temperature: Air		+5°C
Flash point:	~ Resin ~ Hardener	>100°C 110-115°C
Tensile bond strength:		10 - 12 MPa
Tensile Shear strength:		9-10 MPa
Compressive strength:		70 - 90 MPa
Flexural strength:		35 - 40 MPa
Maximum operating temperature:		+70°C
Adhesion Properties to correctly prepared surface:		Excellent Excellent Excellent
Appearance:		~ Concrete ~ Metal ~ Timbers ~ Resin ~ Hardener Opaque/Beige Liquid Clear Pale Liquid
SG kg/litre:	~ Resin ~ Hardener	1.67 - 1.69 1.00
Density Kg/Litre -cured:		1.2
Coverage:		Use as required: (0.001m ³ = 1 Litre) e.g. 1 litre covers 1m ² @ 1mm thick
Pot Life: (Usable Life) <small>Pot life is based on 100gram samples. Large quantities of mixed epoxy will generate heat and the pot life may be significantly reduced.</small>		+12°C– 50%RH 100 minutes +15°C– 50%RH 45 minutes +20°C– 50%RH 30 minutes
Cure Time - Concrete Failure:		+5°C –50%RH 12 hours +23°C –50%RH 6 hours
Clean up:		Wash hands with warm soapy water after any skin contact Solvent HA for tools
NZ Dangerous Goods Class:		~ K80 Refer: SDS
Packaging:		~ K80 Kit ~ K80 Resin ~ K80 Hardener 1 litre Kit 4 litre kit 25 kg Polypail 3 kg Plastic Bottle
Shelf Life		24 months from date of manufacture. (After this period consult with allnex).

RECOMMENDED USES:

- Grouting bolts and starters.
- Bonding new to old concrete.
- Machine bedding (Chocking)– pumpable grout.
- Protective coating for liner of pipes, troughs, effluent runs, concrete pads, traffic pads, bunds and tanks.
- Repair of “spalled” concrete control joints prior to reinstallation of Sealant Joint.
- Where a very good surface hardness and resistance to abrasion so that fast flowing liquids containing particulate matter will not readily wear away the K80.
- Bonding rebar into piles (Pile splicing).
- Concrete surface hardening and coating
- Friable concrete surface reinforcement.

NOT RECOMMENDED:

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

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.

Bolt Grouting: Blow hole clear with clean, dry oil free compressed air.

Spalled Concrete Control Joints: Diamond cut the spalled edges so that the face is vertical > Vacuum clean > Fill > Recut

MIXING RATIO

K80 Mixing Ratio - By weight

Element	Value
Resin	100 parts
Hardener	12 parts

K80 Mixing Ratio - By volume

Element	Value
Resin	100 parts
Hardener	20 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.

Mechanically mix at a low speed (300rpm).

Mix until uniform and no streakiness is evident.

APPLICATION METHOD:

Trowelled | Poured | Pumped | Roller | Brush

Note

The installation of this product is speciality work and consideration should be given to the use of a competent installer.

Bolt Grouting:

Pour in mixed K80 and place bolt/bar. Vibrate to ensure full air release.

New-to-Old Concrete:

Dilute K80 up to 10% with methylated spirits to aid application.

Mix well and spread over prepared old concrete at an application rate of 3m²/Litre. (Depending on surface porosity).

The new concrete must be placed whilst the K80 is still wet (2 hours @ +18°C).

Concrete Wear Pad Reinforcement:

Mix K80 and add dried J61 silica sand (Maximum level 1 litre sand per 2 litres mixed K80 - Mixed SG: 1.8 -2.2kg).

Trowel this into and onto the prepared concrete surface and cure.

Protective Coating:

In these applications K80 can be mixed and applied by brush or roller at 2m²/litre/coat.

Only thin coats may be applied without runs; however, if appearance is not an issue then 2-3mm coatings may be applied. Apply the two coats within 24hrs of each other.

Reforming of Degraded Control Joints:

Control joints are quite often neglected and the edges “spall” and failure occurs due to mechanical damage from impact (forklifts, trollies etc.)

Ensure the area has been correctly prepared.

Mix K80 and add dried J61 silica sand (Maximum level 1 litre sand per 2 litres mixed K80 - Mixed SG: 1.8 -2.2kg).

Pour / Trowel this into the prepared joint and cure.

Recut the control joint to the desired/required width and fill with allnex K130 epoxy joint filler

Refer: K130 Technical Literature

Note

Work quickly as the material is rapid setting and once the set process has started K80 will rapidly gel and set.

Overhead Work:

If a trowelable mix is required to treat over-heads or verticals.

Refer: Supascreed CRS(Concrete Repair System)

CAUTION:

K80 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 performance data.

Note

K80 is very tough and hard but it is not flexible. It will fill non-moving joints but will not bridge actively moving joints.

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.

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