

Technical Data Sheet

K78 Ultra - thin Concrete Crack Repair System



DESCRIPTION:

The K78 epoxy system is an ultra-low viscosity (thin) epoxy for bonding concrete and for injecting to re-bond cracked concrete.

TYPICAL FEATURES | BENEFITS:

- Excellent adhesion to wet and dry concrete.
- Tolerant to all site conditions.
- User friendly.
- Interior | exterior application.
- Penetrates fine cracks
- Cure above +5°C.
- All season use.
- Ultra low viscosity
- Flows into small crevices.
- Crack repair via injection systems

PERFORMANCE DATA:

Properties	Values
Minimum application temperature: Air	+5°C
Flash point:	
~ Resin	>142°C
~ Hardener	>114°C
Tensile bond strength:	10 - 12 MPa
Tensile strength:	60 - 65 MPa
Compressive strength:	80 - 90 MPa
Flexural strength:	35 - 40 MPa
Modulus of elasticity:	N/mm ² 3100 - 3300
Maximum operating temperature:	+70°C
Adhesion Properties to correctly prepared surface:	
~ Concrete	Excellent
~ Metal	Excellent
~ Timbers	Excellent
Appearance:	
~ Resin	Very Thin Liquid
~ Hardener	Very Thin Liquid
SG kg/litre:	
~ Resin	1.15
~ Hardener	0.93
Density Kg/Litre -cured:	1.05
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.	+5°C– 50%RH 45 minutes +15°C– 50%RH 15 - 20 minutes +20°C– 50%RH Very fast
Cure Time - Concrete Failure:	+5°C –50%RH 14 hours +20°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:	
~ K78 Kit	Refer: SDS
Packaging:	
~ K78 Kit	1 litre Kit 4 litre kit
Shelf Life:	24 months from date of manufacture. (After this period consult with allnex).

RECOMMENDED USES:

- Crack repair via injection systems
- Bonding new to old concrete
- 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.

Cracks: Blow cracks clear with clean, dry oil free compressed air.

MIXING RATIO**K78 Mixing Ratio - By weight**

Element	Value
Resin	100 parts
Hardener	34 parts

K78 Mixing Ratio - By volume

Element	Value
Resin	5 parts
Hardener	2 parts

Note

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:

Poured | Pumped | Injected | Roller | Brush

Note

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

APPLICATION:

Application temperature +5°C -+25°C. RH: less than 85%.

Crack Injection:

Apply injection ports to surface of crack with K125. Cover crack surface with K125.

Inject mixed K78 with pump or grease gun system until epoxy exits upper ports.

New-to-Old Concrete:

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 K78 is still wet (2 hours @ +18°C).

CAUTION:

K78 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

Do not use K78 as a finished surface, it cures (on contact with moist air) to a tacky surface.

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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