

# Technical Data Sheet



## K83 Machinable Epoxy Grout & Bonding System

### DESCRIPTION:

K83 (Also known as K75) pourable grout is a fluid, high quality, high-strength machinable epoxy.

### TYPICAL FEATURES | BENEFITS:

- Excellent adhesion.
- Fluid mix.
- User friendly.
- Machinable
- Many uses
- Suitable for many applications.
- Bonds to metal | concrete | timber.
- High adhesion
- Flows into small crevices.
- Resistant to cracking

### PERFORMANCE DATA:

Properties		Values	
Minimum application temperature: Air		+5°C	
Flash point:			
	~ Resin	142°C	
	~ Hardener	151°C	
Tensile strength:		30 - 40 MPa	
Tensile bond strength:		30 - 40 MPa	
Compressive strength:		10 - 12 MPa	
Flexural strength:		35 - 40 MPa	
Maximum operating temperature:		+75°C	
Adhesion Properties to correctly prepared surface:			
	~ Concrete	Excellent	
	~ Metal	Excellent	
	~ Timbers	Excellent	
Appearance:			
	~ Resin	Opaque/Beige Liquid	
	~ Hardener	Clear Pale Liquid	
SG kg/litre:			
	~ Resin	1.3	
	~ Hardener	1.0	
Density Kg/Litre -cured:		1.2	
Coverage:		Use as required: (0.001m <sup>3</sup> = 1 Litre) e.g. 1 litre covers 1m <sup>2</sup> @ 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>		+20°C – 50%RH	20 - 30 minutes
Cure Time - Concrete Failure:		+20°C – 50%RH	2 hours
Clean up:		Wash hands with warm soapy water after any skin contact Solvent HA for tools	
NZ Dangerous Goods Class:		~ K83	Refer: SDS
Packaging:		~ K83 Kit	1 litre Kit
Shelf Life:		24 months from date of manufacture. (After this period consult with allnex).	

### RECOMMENDED USES:

- Machinable moulding resin.
- Electrically neutral material for potting.
- Suitable for filling/backing crusher linings.

**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.

**MIXING RATIO****K83 Mixing Ratio - By weight**

Element	Value
Resin	100 parts
Hardener	10 parts

**K83 Mixing Ratio - By volume**

Element	Value
Resin	100 parts
Hardener	17 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.

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**Crusher Lining:**

K83 (Known as K75 in this industry) is used to pour into the liner cavity to provide a strong backup material which reduces wear rate.

**Machinable /Castable Product:**

K83 can be poured into a mould to produce a smooth and uniform cast. It can be coloured with tinting pastes. Used in conjunction with release agents

*Note*

Work quickly as the material is rapid setting and once the set process has started K83 will rapidly gel and set.

**CAUTION:**

K83 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**

K83 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.

Date: August 2021

Replaces: Sept 2019

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