



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 strength:		30 - 40 MPa
Tensile bond strength:		10 - 12 MPa (<i>without sand filler</i>)
Compressive strength:		110 - 120 MPa
Modulus of elasticity:		1.7 x 10 ⁴ MPa
Flexural strength:		35 - 40 MPa
Coefficient of linear expansion between 20 -50 °C:		21
Water absorption: ASTM D570: 10 days @25°C:		0.2%
New to Old Concrete Bonding: C.G.31436/e <i>Cured 2 weeks underwater</i>		8 - 10MPa (<i>without sand filler</i>)
Maximum operating temperature:		+75°C
Adhesion Properties to correctly prepared surface:	~ Concrete ~ Metal ~ Timbers	Excellent Excellent Excellent
Appearance:	~ 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: (0.001m³ = 1 Litre) e.g. 1 litre covers 1m ² @ 1mm thick	
Pot-Life: (Usable Life) <i>Pot life is based on 100gram samples. Large quantities of mixed epoxy will generate heat and the pot life may be significantly reduced.</i>	+12°C- 50%RH +15°C- 50%RH +20°C- 50%RH	100 minutes 45 minutes 30 minutes
Cure Time:	+5°C -50%RH +23°C- 50%RH +23°C- 50%RH	12 hours - <i>Concrete Failure</i> 6 hours - <i>Concrete Failure</i> 7 days - <i>to obtain all full-strength properties listed above</i>
Clean up:	Wash hands with warm soapy water after any skin contact. DGL Bondlast Solvent HA for tools.	
NZ Dangerous Goods Class:	~ K80	Refer: SDS
Packaging:	~ K80 Kit ~ K80 Kit ~ K80 Resin ~ K80 Hardener	1 litre Kit (0.8333 litre Resin - 0.1666 litre Hardener) 4 litre kit (3.333 litre Resin - 0.6666 litre Hardener) 25 kg Polypail (15 litre) 3 kg Plastic Bottle (3 litre)
Shelf Life:	24 months from date of manufacture. (<i>After this period consult with DGL Bondlast Construction Products</i>).	

RECOMMENDED USES:

- Grouting bolts and starters - Horizontal Surfaces.
- 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.
- Application to unsound substrates.

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/repaired 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:	Phase 1: Degrease with Acetone. Phase 2: Abrade with medium grit abrasive paper. Phase 3: Degrease with Acetone again.
Timber:	Prepare by way of mechanical sanding using 80-grit paper.
Bolt Starter Grouting:	Blow hole clear with clean, dry oil free compressed air.
Degraded Concrete Control Joints:	Phase 1: Diamond cut the spalled edges so that the face is vertical. Phase 2: Vacuum clean. Phase 3: Fill. Phase 4: Re-cut. Phase 5: Fill Joint with chosen Sealant (<i>Refer: DGL Bondlast K130 or Sabrebond SMP60</i>)

MIXING RATIO:

K80 Mixing Ratio - By weight		K80 Mixing Ratio - By volume	
Element	Value	Element	Value
Resin	100 parts	Resin	100 parts
Hardener	12 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	
Mixing:	Slow drill mixed. (<i>200-300rpm</i>). Mix until uniform and no streakiness is evident.

APPLICATION METHOD:

Note
The installation of this product is speciality work and consideration should be given to the use of a competent installer.
Note
Work quickly as the material is rapid setting and once the set process has started K80 will rapidly gel and set.

Trowelled Poured Pumped Roller Brush.	
The surface to be filled/repaired must be clean and sound.	
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 3m ² /Litre. <i>(Depending on surface porosity).</i> <i>The new concrete must be placed whilst the K80 is still wet (2 hours @ +18°C)</i>
Concrete Wear Pad Reinforcement:	Mix K80 and add dry J61 silica sand <i>(Maximum level 1 litre sand per 2 litres mixed K80 - Mixed SG: 1.8 -2.2kg).</i> 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 2m ² /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 occur due to mechanical damage from impact (forklifts, trollies etc.) Ensure the area has been correctly prepared. Mix K80 and add dried J61 silica sand <i>(Maximum level 1 litre sand per 2 litres mixed K80 - Mixed SG: 1.8 -2.2kg).</i> Pour / Trowel this into the prepared joint and cure. Recut the control joint to the desired/required width and fill with DGL Bondlast K130 epoxy or Sabrebond SMP60 joint filler. <i>Refer: DGL Bondlast K130 or Sabrebond Technical Literature</i>
Overhead Work:	If a trowelable mix is required to treat over-heads or verticals. <i>Refer: DGL Bondlast Construction Products for advice.</i>

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.

EPOXY SELECTION:

Refer: Epoxy Selection Chart.

OTHER EPOXIES AVAILABLE:

Product	Use
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
Fairing Cream	Fairing Cream - Sandable Smoothing Paste
Truestik EA	Truestik EA - Flexible Adhesive – Multipurpose

Date: June 2024
Replaces Aug 2021

DGL Bondlast Construction Products, a Division of DGL Manufacturing NZ
Auckland Office: 24-28 Lady Ruby Drive, East Tamaki, phone: 09-267-2772
Auckland Trade Store: 308 Church Street, Penrose, phone: 09-583-6258.
Hamilton Trade Store: 18 Somerset Street, Frankton, phone: 07-847-8658.
Wellington Trade Store: Unit 9A, 4 Glover Street, Ngauranga Gorge, phone: 04-240-0305.
Christchurch Trade Store: 112 Carlyle Street, Sydenham, phone: 03-366-6802.
Customer Service: 0508-882-288 sales.bondlast.cp@dglgroup.com
Website: www.bondlastconstruction.com

DISCLAIMER: This information appearing in this Document (**Details**) concerning the product which is the subject of the Document (**Product**) is either based on present technical knowledge and tests done by Bondlast or tests done by, and data supplied from third parties including you, the customer. Since the actual use by you and by others of the Product is beyond the control of Bondlast, no warranty or representation, express or implied is made by Bondlast regarding the suitability for such use, nor does Bondlast accept any liability arising out of the use by you of other products or materials, whether third party or not, that may be referred to in this Document. Bondlast recommends that you carry out your own tests as to the suitability of the Product for your purpose, regarding which you accept full responsibility. In addition, if any of the Details appearing in the Document are based upon tests done by, and/or data supplied by any third party, Bondlast provides no warranties or representations in connection with those Details and you, the customer waives any right you may have against Bondlast in connection with the accuracy, completeness or otherwise of the Details. The information in this Document is not to be construed as absolutely complete or accurate since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations affecting use of the Product. Bondlast does not provide any warranty or representation to you that the Product does not infringe the intellectual property rights of any third party. All orders accepted shall be subject to the standard conditions of sale of Bondlast which are on the back of our invoice. In accepting the Product, you, the customer acknowledge and agree: **a.)** The Product is or may be of a hazardous nature and that you, the customer, are responsible for the disposal of the container housing the Product in accordance with the requirements and regulations of the relevant supervising government. **b.)** The Product has a limited shelf life and must be stored strictly in accordance with the guidelines and specifications related to it. **c.)** Where the Details relate to Product tested by Bondlast, those Details are indicative only, regarding which there may be batch to batch variation. **d.)** Bondlast gives no warranty or representation as to the applicability for the particular use by you, the customer, of the Product and you the customer shall be responsible for ensuring that the Product is fit for your intended use. **e.)** Bondlast's liability for breach of any term, condition, guarantee or warranty (express or implied and concerning the information in this Document or the Product more generally) including any liability for direct or indirect consequential loss (including indirect loss of profits), is limited to the maximum extent permitted by law and, at Bondlast's election, to either replacing or repairing the goods or paying the cost of replacing or repairing the goods, or in the case of services, supplying the services again.