



K36

Coating and Laminating Epoxy System

DESCRIPTION:

K36 is a general purpose, clear, fluid epoxy resin for coating, encapsulating, and laminating (fibreglass). It forms a hard, durable, and water-resistant finish. It has no odour and is non-flammable. It is non-shrink and will give a thick, glossy durable finish.

TYPICAL FEATURES | BENEFITS:

- Clear, Transparent.
- Fluid mix.
- Bonds to Metal | Concrete | timber.
- Cure above +15°C.
- User friendly.
- High Gloss.

PERFORMANCE DATA:

Properties	Values	
Minimum application temperature: Air	+15°C	
Flash point:	~ Resin	>155°C
	~ Hardener	>117°C
Tensile strength:	Coating System	Laminating System
	48 -55 MPa	250 – 270 MPa
Tensile tangent modulus:	-	21 GPa
Elongation at failure:	-	2.2%
Flexural strength:	100 - 120 MPa	150 - 160 MPa
Flexural tangent modulus:	-	14.2 GPa
Coefficient of linear expansion: 10 ⁻⁶ mm 0°C	50 - 70	10 - 20
Water absorption: wt %	0.4 - 0.5	0.4 - 0.5
Minimum Di-electric strength: 50HZ@25°CkV/cm	180 - 200	180 - 200
Maximum operating temperature:	+60°C	
Adhesion Properties to correctly prepared surface:	~ Concrete	Excellent
	~ Metal	Excellent
	~ Timbers	Excellent
Appearance:	~ Resin	Clear Liquid
	~ Hardener	Thin Clear Liquid
SG kg/litre:	~ Resin	1.15
	~ Hardener	1.0
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)	+15°C– 50%RH	60 - 80 minutes
Pot life is based on 100gram samples.	+20°C– 50%RH	30 - 40 minutes
Large quantities of mixed epoxy will generate heat and the pot life may be significantly reduced.		
Cure Time:	+18°C –50%RH	24 hours - Best after 48 hours - Faster cure at 25 – 35°C 7 days -to obtain all full-strength properties listed above
Clean up:	Wash hands with warm soapy water after any skin contact. DGL Bondlast Solvent HA for tools.	
NZ Dangerous Goods Class:	~ K36	Refer: SDS
Packaging:	~ K36 Kits	1.5 Litre 6 Litre
Shelf Life:	24 months from date of manufacture. (After this period consult with DGL Bondlast Construction Products).	

RECOMMENDED USES:

- Coating bench tops in laboratory or bar tops.
- Encapsulating articles, artworks, souvenirs.
- Sealer, preservative, floor sealer.
- For mixing with aggregate to make trowelled durable topping for hard wearing and resistant floors.
- Combined with fibreglass cloth for laminates, boats and model building, repairs.
- Clear coating for timber.
- Coating jewellery, badges.
- Chemical resistant lining.

NOT RECOMMENDED:

- Application below +15°C air temperature.
- Bonding Polypropylene and polyethylene.
- Not suitable for long periods in exterior situations. *(Will yellow under UV condition).*
- 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.

MIXING RATIO:

K36 Mixing Ratio - By weight		K36 Mixing Ratio - By volume	
Element	Value	Element	Value
Resin	2 part	Resin	2 part
Hardener	1 part	Hardener	1 part

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:	Mix until uniform and no streakiness is evident. May be slow drill mixed. <i>(200-300rpm).</i> Scrape sides of pail and mix again. Avoid air entrainment when mixing. <i>Note: Aeration of the mix can result in blistering of the K130 joint surface.</i> With K36, mixing is critical. <i>Unmixed K36 will result in soft patches.</i> <i>Note</i> <i>Use the Double Mixing Procedure for critical applications.</i> <i>Once mixed transfer mix to a clean pail and mix again. (Any unmixed material will cause “soft spots” in benchtop finishes)</i>

APPLICATION METHOD:

Trowelled Poured Roller Brush	
<i>Use above +15°C (best results above +20°C).</i> <i>Slow cure caused by low temperatures may cause unusual surface flaw effects.</i>	
Benchtops:	**** <i>Observe the double mixing process in “mixing” above</i> **** Apply with a notched trowel. Allow to flow to level (contain edges). The product may be heated with a broad blue oxidizing flame to release air and to level. <i>(non-solvent material).</i> Will cure rapidly in a warm environment. Cure in conditions above 20°C to achieve a rapid gelation. Do not cast in layers exceeding 5mm thick in one single coating. <i>Not suitable for long periods in exterior situations. (Will yellow under UV condition).</i>
Fibreglass Laminating:	Apply mixed K36 to substrate, apply glass cloth or chopped strand mat <i>(CSM options: 225, 300, 450 gsm).</i> Apply more K36 and roll evenly with a laminating roller.

Also Use K36 to Make:

Adhesive:	Add fumed silica. - <i>Option: Refer K214 Technical Literature</i>	
Sanding Paste:	Add micro-balloons and maybe also fumed silica. – <i>Option: Refer Fairing Cream Technical Literature</i>	
Reinforced Adhesive or Paste:	Add micro-fibres.	
Clear Floor Coating: Option 1. Diluted <i>**Caution** flammable system.</i> <i>**Caution** will yellow slightly over time.</i>	Mix 3 litres of mixed K36 with 6 litres of Solvent HA and mix well. Apply to concrete or timber floors with a roller. Apply one or two coats depending on effect required.	
Clear Floor Coating: Option 2. Undiluted <i>**Caution** will yellow slightly over time.</i>	Apply neat material as in (Benchtops) above. Normal application rate for a 1mm film is 1m²/litre.	
Trowelled Floor Topping	Element	Value
	K36 Resin	2.8 kg
	K36 Hardener	1.4 kg
	STZ Flooring Sand	25 kg
	Mix the K36 Resin and Hardener followed by the addition of the STZ flooring aggregates in the quantities as above. Trowel the mix onto the correctly prepared (roughened) concrete.	

Note
The dilute and concentrate “floor coating options” above will give quite different effects on concrete.

CAUTION:
K36 is a two-part epoxy that is mixed in a one-to-one 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 WELL:
The consequences of having soft K36 due to poor mixing may be far reaching and costly to repair.
This is a job that must be done once and done right. Many people do not understand the consequences.
One to one ratio mixing means just exactly that.

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

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