

# *nuplex*<sup>®</sup>

Instructions for  
**Epoxy** adhesives, grouts  
and mortars.



Branches in Auckland, Hamilton, Palmerston North,  
Wellington and Christchurch.

Free Phone 0508-882288

Free Fax 0508-553344

Email: [ncpsales@nuplex.co.nz](mailto:ncpsales@nuplex.co.nz)

A full manufacturing service is provided for the manufacture  
of specific industrial products. Nuplex can manufacture  
epoxies and other systems for your particular application.

Full data sheets and MSDS sheets are available on:  
[www.nuplexconstruction.co.nz/epoxies](http://www.nuplexconstruction.co.nz/epoxies)

# Building and Construction Epoxy Adhesives

**nuplex**® Specialist Epoxy Technology

**Mixing Instructions** Mix thoroughly in the correct proportion using a clean plastic, metal or wooden spatula for at least 2-3 minutes or until an even, streak-free, consistent colour is achieved. Failure to observe the correct mix ratio or carry out insufficient mixing may result in the adhesive not curing properly or having reduced cured properties. Adding excess hardener will not increase cure rate, it will result in uncured material.

## **Safety Precautions**

Nuplex resins and hardeners are generally quite harmless to handle provided that certain precautions normally taken when handling chemicals are observed. The uncured materials must not, for instance, be allowed to come in contact with foodstuffs or food utensils, and measure should also be taken to prevent uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The wearing of impervious rubber or plastic gloves will normally be necessary, likewise the use of eye protection. The skin should be thoroughly cleansed at the end of each working period by washing with soap and warm water. Use adequate ventilation in the working area.

For specific application details please refer to technical data sheets or consult technical representatives for Nuplex Construction Products.

## **Products**

**K36:** Laminating & coating epoxy system resin. Low viscosity, high chemical resistance. Simple 2:1 mix ratio.

**K80:** Easily pourable grout. Bolt grouting and chocking. Cures in adverse conditions. Fast cure

**K102:** Heavily filled mortar. Simple mix ratio. Cleaned up with water.

**K125:** Hard wearing adhesive paste. Simple 1:1 mix ratio. Long pot life. Cleaned up with water.

**K130:** Slightly flexible epoxy compound for concrete control and construction joints. Self levelling, solvent free.

**K214:** Thixotropic adhesive, especially suitable for timber. Easily applied, resilient bonds.

**K230:** Fast curing adhesive paste. Will cure down to 5°C. Simple mix ratio. Cleaned up with water.

**K268:** Rapid setting, non-sag epoxy paste. Simple 1:1 mix ratio, short cure time.

**K273:** Adhesive paste suitable in adverse conditions. Simple mix ratio. Suits underwater application.

**Repikit 310:** Pre-packaged, Crack Injection resin. Very low viscosity. Cures down to 5°C.

**Araplex 2000:** Acrylic polymer emulsion, improves all strengths of Portland cement compositions. Easily used, non-toxic.

**Araplex SBR:** Synthetic rubber latex, imparts great strength and flexibility to cement mortars. Suited for exterior applications.

**Fairing Cream:** Sandable filler used for smoothing or "fairing" large surfaces. Simple 1:1 mix ratio, lightweight and sag free.

**K78:** Very low viscosity, crack repair epoxy, penetrates fine cracks, cures at 5°C, bonds to wet surfaces.

**Truestik EA:** Epoxy—polyurethane gelled adhesive. Suitable for many plastics including PVC, ABS etc. Flexible and waterproof.

**Lamires:** A laminating epoxy, 5:1, for the use with fiberglass systems.

**K106 (Araldite 2001):** Simple mixing ratio (1 : 1 by volume). Easy to mix and apply 20-100°C curing range. Negligible shrinkage. Heat resistant to 60°C. Resistance to a wide range of chemicals. Excellent gap-filling properties.

**K219 (Araldite 2002):** Simple mixing ratio (1 : 1 by volume). Fast setting- hardens in 10-15 minutes. Full strength in 2 hours. 0-50°C curing range. Negligible shrinkage. Heat resistant to 40°C. Resistant to water and to a wide range of chemicals.

**K138 (Araldite 2004):** Easy to mix and apply. Gap filling, non-slump. 5-100°C curing range. Negligible shrinkage. Heat resistant to 120°C. Resistant to water and to a wide range of chemicals.

**Araldite 2005:** Simple mixing ratio (2:1 by volume). Gap filling. 20-100°C curing range. Negligible shrinkage. High shear and peel strength. Heat resistant to 80°C. Resistant to water and to a wide range of chemicals.

### **As Supplied Properties**

### **Resin**

### **Hardener**

K 36	Translucent liquid	Amber Liquid
K 80	Mineral filled liquid, beige	Thin clear Liquid
K102	Heavy white paste	Heavy Black paste
K125	Heavy white paste	Heavy black paste
K130	paste, coloured	Amber viscous liquid
K214	White gell paste	Amber gell paste
K230	Heavy white paste	Heavy black paste
K268	Heavy white paste	Heavy black paste
K273	White paste	Black paste
K 78	Thin liquid	Very thin liquid
Repikit 310	Single 250ml tube containing resin & hardener	
K106	Cream paste, in squeezable bottle form.	Honey paste
K219	Cream paste, in squeezable form	Honey paste
K138	Beige paste	Grey paste
K2005	Cream paste	Amber form.
Araplex 2000 / SBR	Thin milky white waterbased emulsions.	
Fairing Cream	White resin mixed with yellow hard. to form a beige paste.	
Truestik EA	A gelled transparent, green adhesive.	
Lamires	Thin resin and hardener system, transparent.	

Mix Ratios	By weight		By volume		Useable pot life. (500grms @ 21°C)
	Resin	Hardener	Resin	Hardener	
K 36	2	1	2	1	20
K 80	10	1	5	1	30
K 102	1	1	1	1	45
K 125	1	1	1	1	45
K 130	3.4	1	3	1	20
K 214	2	1	2	1	25
K 230	1	1	1	1	15
K 268	1	1	1	1	5
K 273	1	1	1	1	15
K 78	100	28	5	2	10
K 106	100	80	1	1	45
K219	1	1	1	1	5
K 138	100	40	100	40	30
K2005	100	40	2	1	45
Fairing Cream	100	62	1	1	45
Tuestik EA	3	1	3	1	60
Repikit systems	Full tube only.				
Araplex2000	n/a				
Araplex SBR	n/a				

### Surface Preparation

To achieve strong joints, it is essential that the joint surfaces are dry, dust-free mechanically sound and free from contamination, such as mould, oil, grease etc. Steel is best prepared by grit-blasting. If the blast treatment is carried out immediately prior to applying the adhesive, the use of a primer is unnecessary.

If a primer is used, it must be ascertained beforehand that it is of a type which will not impair the bond strength. Concrete should be free from grease and oil and if necessary, clean with an industrial grade degreasing agent and then likewise prepared by grit-blasting. Laitance should be removed to a depth at which the main aggregate starts to appear. Further information on mechanical and chemical pre-treatments for a wide range of substrates is available on request.

**Cleanup:** Use Eposolve 70 to clean tools and containers before the product sets. Aggressive paint strippers may soften cured epoxies.

**Curing Times:** Epoxies cure best at normal room temperatures but will cure faster if warmed (30–40°C). Cure times will lengthen as the temperature drops and some epoxies have a minimum cure temperature (as shown on this chart). If your epoxy does not cure, check: (1) that the mix ratio was correct, and (2) that the temperature is above the minimum. Increasing the hardener level will not speed the cure and will result in a softer product.

Cured properties	Cure time @ 20°C, hrs	Heat Resistance (softening point) °C, (Max operating temp)	Min. cure Temperature °C	Compressive strength MPa ±5	Tensile Strength MPa
K 36	48	60	20	60	50
K 80	12	75	5	120	35
K 102	24	65	10	75	40
K 125	24	65	10	80	40
K 130	24	60	10	35	45
K 214	24	65	15	45	35
K 230	18	65	10	75	40
K 268	12	60	10	75	n/a
K 273	18	85	5	80	30
K 78	8	70	5	90	60
K 106	15	60	15	16 N/mm <sup>2</sup> lap	5 N/mm peel
K 219	2	40	0	15 N/mm <sup>2</sup> lap	2.5 N/mm peel
K 138	24	120	5	17 N/mm <sup>2</sup> lap	1.8 N/mm peel
K 2005	24	80	20	29 N/mm <sup>2</sup> lap	7 N/mm peel
Fairing Cream	24	60	15	15	n/a
Tuestik EA	24	60	12	60	n/a
Repikit systems	8	70	5	70	45
Araplex2000	7 days	n/a	5	35	n/a
Araplex SBR	7 days	n/a	5	35	n/a

See individual datasheets for full information: [www.nuplexconstruction.co.nz/epoxies](http://www.nuplexconstruction.co.nz/epoxies)

<b>Epoxy Systems</b>	<b>K102</b>	<b>K125</b>	<b>K230</b>	<b>K273</b>	<b>Fair Cream</b>	<b>K36</b>	<b>Lamires</b>	<b>K78</b>	<b>K80</b>	<b>Repikit</b>	<b>K130</b>	<b>K214</b>	<b>Truesfik EA</b>
Appearance	Thick Mortar	Medium paste	Paste, faster set, Sand	low temp wet	Lite sandable paste, 1:1	Liquid clear	Thin Slow & Fast	Very thin, Clear, grout	Pourable damp concrete	Very thin, in kit tube, injection	Flex. Colour	Glue gel	Flexible adhesive, Multipurpose
Bolt Grouting Vertical									X				
Repair & Bolt Horizontal		X											
concrete Repair	X		X	X									
Concrete repair-vertical	X		X		X								
Wet concrete				X					X				
Rapid Set													
GP adhesive												X	
Hi-spec flexible,													X
Clear encapsulation; screw hole filler, sandable					X								
Crack repair					X			X		X	X		
New to old Concrete									X				
Underwater work				X									
Repair Floors								X	X	X			
Concrete Joint											X		
Fiberglass Laminating						X							