



PRODUCT INFORMATION

ULTIFIL 2001 814
EXCELLENT MOISTURE RESISTANCE
TWO PART EPOXY
RESILIENT
WORKING TEMPERATURE -40°C to 110°C
BLACK

ULTIFIL 2001 814 CABLE JOINTING COMPOUND

GENERAL DESCRIPTION

Ultifil 2001 814 is a black, semi rigid, two-part epoxy infill compound. The system has a low viscosity and is easily processed. The resin exhibits good adhesion to plastic, XLPE, PVC and nylon and all types of metals. Once cured the resin provides excellent protection against moisture, salt, oil and many types of chemicals along with providing excellent electrical and mechanical properties.

APPLICATION

For the encapsulation of all types of cable joints, power cable, telecommunications, fibre optic cable, with copper or aluminium conductors.

SPECIFICATION

PROPERTIES OF THE -	BASE	HARDENER
Viscosity @ 25°C poise	45-55	5-8
Specific gravity	1.16 - 1.20	1.01 - 1.03
Appearance	black.	clear.

PROPERTIES OF THE MIXTURE –

Mix ratio base: hardener	3:2 pbw 1.73:1 pbv
Viscosity @ 25°C poise	15-25
Specific gravity	1.10 - 1.13

NOTE: Due to the introduction of improvements from time to time the right is reserved to supply products that may differ slightly from those illustrated or described in this publication.

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CURE CHARACTERISTICS

HD631.1 S2	Method	Temperature	Result
Gel time 100grms		25°C	18-23 min.
Usable life 300 cc volume	7.2	23°C	10min
Usable life 300 cc volume	7.2	5°C	<75 min
Usable life 300 cc volume	7.2	35°C	>5 min
Exotherm 300 cc volume	7.3	23°C	120°C
Exotherm 300 cc volume	7.3	35°C	135°C
Cure under water	7.6	23°C	<10ml
Volume Shrinkage			3%
Shore D 24 hours cure at 23°C		23°C	70
Shore D 24 hours cure at 50°C		23°C	75

WORKSHOP PRACTICE

Most problems occur with 2 part systems due to the failure to mix correctly. The following procedure is recommended: -

1. Remove outer wrapper - cut with scissors being careful not to pierce the inner pack.
2. Remove clip - unfold sachet, hold each side firmly along the top edge. Pull apart to release central plastic clip. Do not slide apart as this can puncture the pack.
3. Mix - mix the contents by using the fingers and thumbs. Ensure that the material in the corners and edges of the pack are well mixed in. The mixing process takes 3-5 mins. Care should be taken not to burst the pack by over enthusiastic mixing.
4. Cut off the corner - this will give a dispensing cone. The size of the cone determines the rate the material is dispensed.
5. Dispense material - gradually pouring the material to fill moulds from the bottom up reduces inclusion of air.

CURE SCHEDULE

500 grams mass hard 3 hrs at room temp.
 full 48 hrs at room temp.
 or 2.5 hours at 60°C

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PROPERTIES OF CURED COMPOUND

Tensile strength	ISO527	35	MPa
Elongation at break	ISO527	3	%
Water absorption	ISO 62	0.15	%
Heat distortion temperature		72	°C
Dielectric strength	IEC 243		
	Ambient	250+	kV/cm.
	At 90°C	200+	kV/cm.
	24hrs water	200+	kV/cm.
Dielectric constant	IEC 250	3.4	50Hz
Dissipation factor	IEC 250	<0.01	50Hz
Volume resistivity Log10 ohm	IEC 93		
	Ambient	>14	Ω/mm
	At 90°C	>10	Ω/mm
Adhesion to	PVC	good	
	XLPE	good	
	Lead	good	
	Aluminium	good	
	Copper	good	

STORAGE

Between 5°C and 30°C in sealed packs. Avoid contamination with moisture.
Shelf life 12 months.

PACKAGING

Link Packs for Cable Kits
1kg, 3kg, 5kg

HEALTH & SAFETY

See relevant Material Safety Data Sheet.

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