



ELI-CAST FR/974/C1
CASTING RESIN 'SEMI FLEXIBLE'

PRODUCT: Eli-Cast FR 974/C1 is a white, filler extended Polyurethane Resin with excellent impact resistance and exceptional low shrinkage

DESCRIPTION:	A two pack Polyurethane Resin	
COLOUR:	Resin:	White
	Hardener:	Brown
FLASHPOINT:	Resin:	> 200°C
	Hardener:	> 200°C
MIXING RATIO:	<u>By Weight:</u>	<u>By Volume:</u>
	100 Parts of Resin	100 Parts of Resin
	19 Parts of Hardener	22 Parts of Hardener
VISCOSITY / 25°C:	Resin:	4 000 – 4 500 mPa.s
	Hardener:	160 – 240 mPa.s
	Mixed Resin:	3 000 – 3 200 mPa.s
POTLIFE / 25°C:	15 – 20 Minutes	
GELTIME / 25°C: (20mm thick cast)	25 – 30 Minutes	
SETTING TIME / 25°C: (20mm thick cast)	1 Hour	
PRACTICAL CURE / 25°C:	48 Hours	
FULL CURE / 25°C:	7 Days	
TYPICAL EXOTHERM: (1000g mass / 25°C)	Maximum 60°C	
SPECIFIC GRAVITY / 25°C:	Resin:	1.5 – 1.55 g/cm ³
	Hardener:	1.22 – 1.24 g/cm ³
	Mixed Resin:	1.45 – 1.5 g/cm ³

TYPICAL PHYSICAL CHARACTERISTICS

ADHESION ON: Cleaned, roughened Steel, Aluminium, Lead, Copper: Good
Cleaned and flame treated PVC and Polyethylene: Satisfactory - good
Non-flamed Polyethylene: Not satisfactory

2/....

Page 2
FR/974/C1

HARDNESS / 25°C
24 HOURS CURE: Shore D 55 – 60
14 DAYS CURE: Shore D 70 – 75

HEAT DISTORTION TEMPERATURE
CURED: 7 DAYS / 25°C: 60 – 65°C

SHRINKAGE AFTER CURE:
7 DAYS / 25°C: Maximum 1%

ELONGATION (Average): 15%

TENSILE STRENGTH:
(Din 53455) (Average) 30 – 33 MPa

IMPACT STRENGTH:
(Din 53453) (Average) 17 – 19 kJ/cm³

COMPRESSIVE STRENGTH:
(Din 53454) (Average) 50 – 55 MPa

FLEXURAL STRENGTH:
(Din 53452) (Average) 55 – 60 MPa

TYPICAL ELECTRICAL PROPERTIES

DIELECTRIC STRENGTH: (Din 53481) 21 KV/mm

DIELECTRIC CONSTANT: (Din 53483) 3,8

DISSIPATION FACTOR: 0,02

SURFACE RESISTANCE: (Dry) 1 x 10¹⁴

TYPICAL CHEMICAL PROPERTIES

RESISTANCE TO:	Diluted Acids and Alkaline:	Resistant
	Water, Oil, Grease, Detergents:	Resistant
RESISTANCE TO SOLVENTS:	Solvents, aliphatic alcohols:	Resistant
	Aromatic:	Normally resistant, tests are recommended
	Esters and Ketones:	Non-resistant
WATER ABSORPTION:	24h / 25°C:	Maximum 1.5%
HYDROLYTIC STABILITY:		Excellent

3/...

Page 3
FR/974/C1

STORAGE STABILITY:	12 months: Resin plus Hardener must be stored under dry and cool conditions in tightly closed containers
NOTE:	If packed in 2 component plastic / aluminium foil bags: once aluminium foil has been opened or damaged, both components must be mixed and cast to avoid moisture ingress on storage.
TOXICITY:	Non-toxic at ambient temperatures, very low skin irritation potential. However, gloves should be worn and adequate ventilation must be ensured during application.
NOTICE:	<p>The technical specification and/or our technical advice whether verbal, in writing or by trials is given in good faith and based on our test results obtained but without warranty. It does not release the user from the obligation to test the products supplied by us or any third party as to the suitability for the intended application.</p> <p>The application, use and processing of the products are beyond our control and Messrs Elite Chemical Industries (Pty) Ltd's legal obligation in respect of any sale of its products shall be determined by the terms of its conditions of sale.</p>

JULY 2011
JF/rb