

## ELI-FIL FR 912 STEEL PUTTY

PRODUCT	A metal filled, ambient temperature curing, two-pack Epoxy Paste with outstanding mechanical and thermal properties	
APPLICATION	By spatula	
VISCOSITY / 25°C	Non-sagging Paste	
MIXING RATIO	<u>By Weight:</u> 100 Parts of Resin 11 Parts of Hardener	<u>By Volume:</u> 100 Parts of Resin 30 - 35 Parts of Hardener
	OR 1 x 12.5ml spoon filled with Resin to level = 40 – 42 g	
	PLUS 1 x 5ml spoon filled with Hardener to level = 4.5 – 5 g	
COLOUR	Metallic grey	
RECOMMENDED MIXING TIME / 25°C	3 - 5 Minutes	
GELTIME / 25°C (5mm thick film application)	1½ - 1¾ Hours	
SETTING TIME / 25°C (5mm thick film application)	3 - 4 Hours	
SPECIFIC GRAVITY / 25°C	Resin: 2.8 – 3 g/cm <sup>3</sup> Hardener: 0.97 – 1 g/cm <sup>3</sup> Mixed Compound; 2.7 – 2.8 g/cm <sup>3</sup>	
<u>PHYSICAL CHARACTERISTICS</u>		
HARDNESS AFTER 24 HOURS CURE / 25°C FULL CURE / 7 DAYS / 25°C	Shore D 92 Shore D 95	
TEMPERATURE RESISTANCE	Product is suitable for applications up to 120°C	
CURE SHRINKAGE (Cured 7 days / 25°C)	0,05 - 0,1 %	
CO-EFFICIENT OF THERMAL EXPANSION cm/cm / °C	24 x 10 <sup>-6</sup>	
TENSILE STRENGTH (DIN 53455)	28 MPa	

FLEXURAL STRENGTH (DIN 53452)	39 MPa
COMPRESSIVE STRENGTH (DIN 53454)	65 MPa
IMPACT STRENGTH (IZOD Method A)	4.5 kJ/m <sup>2</sup>

CHEMICAL CHARACTERISTICS

(Cured 7 days / 25°C)  
(Immersion 30 days / 25°C)

SULPHURIC ACID 10% CONCENTRATION	Good
HYDROCHLORIC ACID 10% CONCENTRATION	Good
AMMONIA ) 10% SODIUM HYDROXIDE )	Very good
WATER AND SALT SOLUTION	Excellent
OIL AND GREASE	Excellent
PETROL, AROMATIC SOLVENTS	Good
ESTERS - KETONES, CHLORINATED HYDROCARBON SOLVENTS	Generally poor (tests are recommended)
STORAGE STABILITY	12 months stored under dry and cool conditions in sealed containers
TOXICITY	Very low toxicity at ambient temperatures. However, gloves should be worn and adequate ventilation must be ensured during application.
PROPERTIES AND USES	Eli-Fil FR/912 Steel Putty can be used for emergency and permanent repairs of broken castings, tanks, parts of machinery, to level irregularities and fill blow holes, to build up worn parts and to bond various metals, i.e. iron, steel aluminium. The product is also suitable for making tools, jigs, models, etc.
NOTICE	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.

NOTICE (CONT/....)

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.