

PLASTIC STEEL

ThistleBond

A Division of E. Wood Ltd., U.K.



ThistleBond 'Plastic Steel' is a high performance multi purpose metal repair compound specifically developed for onsite repairs of damaged or faulty castings, corroded pumps, valves, pumps or shafts where excellent mechanical strength and easy machining properties are required. This product is formulated on a complex range of polymer resins combined with a polyamino curing system which is reinforced with inert pigments and fillers to produce a pourable paste which has excellent resistance to corrosive liquids and gases.

ThistleBond 'Plastic Steel' can be applied to any corroded or damaged part to regain original dimensions with required mechanical properties. It bonds effectively to many substrates including wood / concrete. Apart from good mechanical properties, 'Plastic Steel' has an excellent chemical corrosion resistance (Test of SALT FOG passed for 5000 hours) which ensures a full proof repair in any working condition.

SURFACE PREPARATION & APPLICATION PROCEDURE

Remove thick deposits like grease, rust, dust, dirt and make surface rough enough. Clean with ThistleBond 'Cleaner'. Surface should be prepared by mechanical grinding / wire wheel / angle grinder / needle gun or by abrasive blasting to SA 2.5 profile. Cross score surface to improve adhesion especially for fluid flow equipments.

Mix Resin & Hardener in 3:1 ratio by volume and mix thoroughly till single colour consistency appears. Apply by spatula, initially by finger over prepared surface by wetting action to fill up deformities and to remove entrapped air from the surface. Then apply further based on deformity / rebuilding dimension. Once full cure is achieved, sanding, grinding, drilling, tapping and machining can be done on the repaired portion.

PLASTIC STEEL

PHYSICAL PROPERTIES

Flexural Strength	700 kg/cm ²
ASTM D790	(10000 psi)
Compressive Strength	1090 kg/cm ²
ASTM D695	(15500 psi)
Tensile Shear Adhesion	175 kg/cm ²
ASTM D1002	(2500 psi)
Heat Distortion	90 °C
ASTM D648	
Nuclear Decontamination	Excellent
BS4247 Part I	
Hardness (Rockwell R)	100
ASTM D785	
Corrosion Resistance	5000 hours
ASTM B117	unaffected

PHYSICAL CONSTANTS

Mixing Ratio	Resin	Hardner
By Volume	3	1
Appearance	Resin	Hardner
Paste	Dark Grey	Grey
Drying Time @ 20°C		
Usable Life	30 Minutes	
Gel Time	60 Minutes	
Machining	2 Hours	
Volume Solids	100%	
VOC	Nil	
Operating Temperature	Maximum	Continuous
Dry Heat	250 °C	120 °C
Wet Heat	120 °C	70 °C
Shelf Life	5 years	

CHEMICAL RESISTANCE *

Acetic Acid 0-10%	Excellent
Hydrochloric Acid 0-20%	Excellent
Hydrobromic Acid Dilute	Excellent
Nitric Acid 0-10%	Excellent
Liquid Petroleum	Excellent
Nitrous Oxide	Excellent
Sulfuric Acid 0-20%	Excellent
Sulphur Dioxide	Excellent
Sea Water	Excellent

SUPPLY INFORMATION

Stock No : TRK19063

Description : Plastic Steel

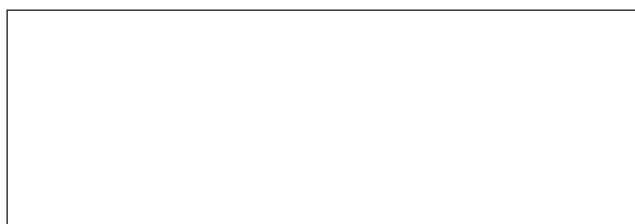
Pack Size : 0.500 kg

* for further information see Chemical Resistance Chart

RECOMMENDED APPLICATIONS

- Rebuilding worn out shafts, bearing housings
- Rebuilding of pump casings, end covers, volutes
- Making the prototype dies, jigs and fixtures
- Reclaiming the dimensions of pump bodies, collors, flanges
- Repair of pitting, cavities in pump casings
- Repair of cracks in gear boxes, metal components
- Metal joining

Distributor catering to your needs



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