# DIFFUSION ENGINEERS LTD



#### **INSTAMETAL**

TechnicalData: DIFFCOR/CR/06-18

**Product Description:** INSTAMETAL is an easy, effective, rapid curing metal repair compound, the best material for fast, effective leak sealing repairs. It is an indispensable tool-box item of rapid curing, cold applied synthetic metal compound that lets you make effective repairs to all types of machinery and equipment which can be back in service with minutes. It will bond to just any surface making it an ideal choice for emergency repairs to all types of mechanical equipment.

#### **Application:**

INSTAMETAL is the best material for fast and effective leak sealing repairs to pipes, tanks, radiators, threaded fittings, ducts, oil pan/sumps, casings, transformers etc.

**Instametal** abrasion resistance fillers filled epoxy resin system. It is fast setting putty used for quick leakage repairs. **Te**mperature range 20 °C to 150 °C.

Technology	Epoxy	
Chemical Type	Epoxy	
Appearance(Base)	Black	
Appearance(Activator)	White	
Appearance(Mixed)	grey	
Components	Two component-requires mixing	
Mix Ratio, by volume Resin: Hardener	3:1	
Mix Ratio, by weight Resin: Hardener	2.7:1	
Cure	Room temperature cure	
Application	Abrasion resistance	

#### TYPICAL PROPERTIES OF UNCURED MATERIAL

Base:

Viscosity: Paste
Weight per liter: 2.45 kg/liter

Hardener:

Viscosity: Paste
Weight per liter: 1.55 kg/liter
Mixed:

Paste

Viscosity putty/Paste
Coverage 0.37 m² @ 1mm
thick/1kg

#### TYPICAL CURING PERFORMANCE

**Curing Properties** 

Gel Time @ ambient temp minutes 05 to 07

Curing time vs. Temperature

Curing time vs.	. I chipci atui c	inperature		
Ambient	20°C	25°C	30°C	
temp				
Pot life	10-12min	07-10- min	5-07 min	
Full cure	15hrs	10hrs	06 hrs.	

## Typical cured properties of material

Compressive strength (ASTM D642)	7000-7500 Psi
Flexural strength (ASTM 790)	8000-8500 Psi
Hardness shore D (ASTM D2240)	80-85
Tensile strength (ASTM D882)	4500-5000 Psi
Elongation At break %( ASTM D882)	1.5
Shear strength (ASTM D1002)	2000-2500 Psi
On grit blasted MS surface	
Salt spray resistance (ASTM B117)	5000 hrs

**Surface preparation:** Surface to be coated should be cleaned with wire brush. Base and Activator must be mixed together immediately prior to use. Mix properly until it completely homogeneous. The mixed material must be used within 2 min of mixing at 30°C

### **Application Procedure:**

Instametal can be applied by applicator, Best application results are obtained with a good surface preparation. Once the material has cured for a minimum period of 2-3 hours at 30°C.

