# **DIFFUSION ENGINEERS LTD**



### CERABEAD

### TechnicalData: DIFFCOR/CR/06-18

### **Product Description:**

CERABEAD is a Ceramic Bead filled Putty lining compound incorporating a blend of Ceramic Beads and Powders. It exhibits outstanding abrasion resistance, adhesion and toughness.

### **Application:**

- 1) Cyclone & separator bodies
- 2) Pump liners and impellers
- 3) Chutes & hoppers
- 4) Housings, separator guide vanes
- 5) Pipe elbows, chutes for clinker, cement, sand

CERABEAD is used where maximum abrasion resistance is needed. It offers toughness to withstand impact of heavy rocks and ores. Possesses resistance to wet acidic and alkaline conditions Temperature range 20 °C to 150 °C.

Technology	Epoxy
Chemical Type	Epoxy
Appearance(Resin)	Dark Red
Appearance(Activator)	White
Appearance(Mixed)	Pink
Components	Two component-requires
	mixing
Mix Ratio, by volume	3:1
Resin: Hardener	
Mix Ratio, by weight	4:1
Resin: Hardener	
Cure	Room temperature cure
Application	Abrasion resistance

# TYPICAL PROPERTIES OF UNCURED MATERIAL

Base:	
Viscosity:	Paste
Weight per liter:	2.3 kg/liter
Hardener:	
Viscosity:	Paste
Weight per liter:	2.4 kg/liter
Mixed:	-
Viscosity	Paste
•	

Coverage thick/1kg

### TYPICAL CURING PERFORMANCE Curing Properties

Gel Time @ Ambient temp, 35

minutes 30 to

### Curing time vs. Temperature

Ambient	20°C	25°C	30°C
temp			
Pot life	65min	45min	30min

## Typical cured properties of material

Compressive strength (ASTM D642)	5500-6000 Psi
Flexural strength (ASTM 790)	10500-11500 Psi
Hardness shore D (ASTM D2240)	88-90
Tensile strength (ASTM D882)	4500-5000 Psi
Elongation At break %( ASTM D882)	1.2
Shear strength (ASTM D1002)	2250 Psi
On grit blasted MS surface	
Abrasion resistance H-18 wheels	32mg
1000 cycles (ASTM D 4060)	
Cure shrinkage	0.006
Coefficient of thermal expansion	$35 \times 10^{-6}$ in/in/ <sup>0</sup> F

**PROCEDURE:** a clean dry surface free of loose rust or scale is necessary. Abrasive blasting to "near white" is preferred for general use. For severe Immersion conditions or temperature exposure, blast to "white metal". For concrete – Remove heavy grime by wire brush or mechanical abrasion, degrease with detergent followed by water rinse. Allow to dry fully. All deteriorated and weak concrete must be removed to expose sound surface

CERAMETAL 2 OR DIFFPRIME can be used as priming material for excellent adhesion.

#### Mixing:

Mix "base and activator" in specified ration which is supplied in contrasting colors, on clean flat surface. Mix with spatula until a uniform blend free of streaks is obtained

New Generation Surface Engineering DIFFUSION ENGINEERS LIMITED

0.2 m<sup>2</sup> @ 2mm

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