# **DIFFUSION ENGINEERS LTD**



### **CERABEAD XTREME** TechnicalData: DIFFCOR/CR/02-18

## **Product Description:**

Cerabead Xtreme is a tough composite material filled with ultra resilient, high strength to weight ration special fiber, ceramic beads and ultra hard densely packed ceramic particles that outstands all material against erosive & pneumatic abrasive environment.

## **Application:**

- Cyclone separator 1)
- 2) Ash handling pipes and valves
- 3) Mining classifier screws & trough, scrubber main lining
- 4) Grit cone, cement mill body, rotor
- Pipeelbows, chutes for clinker, cement, sand 5)
- 6) Coal pulverizes and exhausters Slurry pumps
- 7) Sand pumpingequipment
- 8) Dust collectors and exhauster

Cerabead Xtreme Wearing Compound is a two-part ceramic filled epoxy paste designed to protect, rebuild and repair high wear areas of processing equipment. Temperature range 20 °C to 150 °C.

Technology	Epoxy
Chemical Type	Epoxy
Appearance(Base)	Light Grey
Appearance(Activator)	Pale yellow
Appearance(Mixed)	Pale yellow
Components	Two component-requires
	mixing
Mix Ratio, by volume	2.5:1
Resin: Hardener	
Mix Ratio, by weight	1.7:1
Resin: Hardener	
Cure	Room temperature cure
Application	Abrasion resistance

#### TYPICAL PROPERTIES OF UNCURED MATERIAL Base:

Paste
2.5 kg/liter
C
Paste
2.5 kg/liter

# Mixed:

Viscosity	
Coverage	

0.2 m<sup>2</sup> @ 2mm thick/1kg

### TYPICAL CURING PERFORMANCE **Curing Properties**

Gel Time @ Ambient temp.

Minutes 40 to 45

Paste

# **Curing time vs. Temperature**

Ambient	20°C	25°C	30°C
temp			
Pot life	90min	40min	30min
Full cure	24hrs	16hrs	12 hrs

### Typical cured properties of material

Compressive strength (ASTM D642)	10000-12000 Psi
Flexural strength (ASTM 790)	8500-9500 Psi
Hardness shore D (ASTM D2240)	88-90
Tensile strength (ASTM D882)	4000-4500 Psi
Elongation At break %( ASTM D882)	1.2
Shear strength (ASTM D1002)	2000 Psi
On grit blasted MS surface	
Abrasion resistance H-18 wheels 1000 cycles (ASTM D 4060)	38mg
Cure shrinkage	0.006
Coefficient of thermal expansion	$32 \times 10^{-6}$ in/in/ <sup>o</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



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