# RESIST ABRADE CERAMIC epigen 3773



## TECHNICAL BULLETIN

A wearing compound that can be used to treat a variety of new or worn components to improve or prolong the life under abrasive and erosive conditions. Resist Abrade is a two component polymer composite comprising graded sintered ceramic of extreme hardness and abrasion resistance. The polymer binder cures to form a tough, infusible material possessing excellent wear resistance and adheres strongly to suitably treated metal without sag at thicknesses in excess of 40mm.

The surface finish may be laid as a thin film however it is recommended 6mm be a minimum. It is aceptable to apply high builds in most situations since the thicker the application the longer the life. Application to inverted surfaces can be easily carried out without sag or fall.

## **TYPICAL APPLICATIONS**

Chutes & Bins Pumps

Slurry Boxes Reclaimer Buckets
Slurry Lines Trommel Shells

Screens Cyclones
Crusher Overflows Baffle Boxes

## **INDUSTRY TYPES IN USE**

Iron Ore, Coal Mining, Diamond Copper, Nickel, Gold

Manganese, Dredging, Power Generation

## **FEATURES**

Excellent wear resistance

Application DFT from 6mm to 40mm in 1 coat

Unrestricted service in less than 24 hours

Free of all solvents - zero VOC

Engineered for high mechanical strength

Versatility in application

Cures under cold adverse conditions

Very easy application in any orientation

Recoatable with minimal preparation



## **PROFILE**

Colour	Mid Grey
Ratio by weight	18 "A" to 1 "B"
	6.63 kg Component "A"
	0.37 kg Component "B"
Pot Life minutes @ 20°C	45
Mixed consistency @ 20°C	Trowellable Putty
Specific gravity when mixed	2.25
Coverage, /m <sup>2</sup> @ 10mm	22.5kg

## TYPICAL CURED PROPERTIES

Compressive strength ASTM D695, Mpa	>80
Tensile strength ASTM D638, Mpa	>10
Flexural strength ASTM D790, Mpa	>15
Hardness, Shore D	88
Thermal conductivity ASTM C177, Kcal/m.hr° C	0.40
Maximum exposure temperature, ° C	130
Heat deflection temperature ASTM D648, $^{\rm o}{\rm C}$	80
Thin Film Gel @ 10mm, Minutes	100
Thin Film Set @ 10mm, Minutes	120
Ultimate cure time to Service @ 10mm, Hours	24
Thin Film Gel @ 20mm, Minutes	70
Thin Film Set @ 20mm, Minutes	100
Ultimate cure time to Service @ 20mm. Hours	18

This information is supplied as an indicative reference only. Caution should be used where direct comparisons are to be made.

## RESIST ABRADE CERAMIC epigen 3773



## **SURFACE PREPARATION**

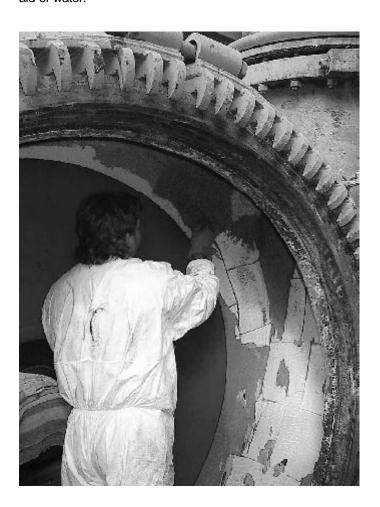
In line with all cases where good adhesion is expected, the substrate should be reasonably clean and free from loose particles. Methods for substrate preparation include abrasive blasting, etching, grinding or scarifying. The technique best suited depends on the substrate, the service conditions, and practical considerations. Specialist advice is available from Peerless Industrial Systems to ensure the correct preparation procedure is employed for specific applications.

## **APPLICATION**

Mixing of product should be carried out using slow speed mixers or spatulas, and completed by adding to the component "A", the component "B". Ensure the mix is homogenus and free from lumps.

Application can be carried out by applying mixed compound directly to the desired area or component with gloved hands or by tools such as paint scrapers, putty knives or flat steel trowels, the latter mainly for large horizontal areas. Application can be carried out with relative ease whether in either vertical or horizontal configurations.

Resist Abrade may be finished smooth and flat with the aid of water.



3773:2002/July rev4,2011/Sept

## CHEMICAL RESISTANCE

Tested at 21°C. Samples cured for 10 days at 25°C. Curing at elevated temperatures will improve chemical resistance

- 1 = Continuous or long term immersion
- 2 = Short term immersion
- 3 = Splash and spills
- 4 = Avoid contact

Acetic Acid, 10 %	2	Acetone	2
Acetic Acid, Glacial	2	Ammonium Chloride	1
Hydrochloric Acid, 5 %	1	Beer	1
Hydrochloric Acid, 10 %	1	Dichloromethane	4
Hydrochloric Acid, conc	2	Diesel Fuel	1
Nitric Acid, 5 %	2	Isopropyl Alcohol	1
Nitric Acid, 10 %	3	Kerosene	1
Phosphoric Acid, 5 %	1	Petrol	1
Phosphoric Acid, 20 %	2	Salt Water	1
Sulfuric Acid, 5 %	2	Sewage	1
Sulfuric Acid, 20 %	3	Skydrol	1
Ammonium Hydroxide, 5 %	1	Sodium Cyanide	1
Ammonium Hydroxide, 20 %	1	Sodium Hypochlorite	1
Potassium Hydroxide, 5 %	1	Toluene	2
Potassium Hydroxide, 20 %	1	Trichloroethane	2
Sodium Hydroxide, 5 %	1	Wine	1
Sodium Hydroxide, 20 %	1	Xylene	1

This information is supplied as an indicative reference only. Caution should be used where direct comparisons are to be made.

## CURE

Variations in cure may arise due to the amount of material being applied, the thickness of material being applied, the surface temperature, and the product temperature. The cure may be increased by heating product or by leaving mixed material stand for 15 minutes before use. The cure may be decreased by cooling the product before mixing.

## EPIGEN PRODUCTS MANUFACTURED BY Peerless Industrial Systems Pty Ltd

ABN 14 097 615 391 79 Robinson Ave, Belmont, WA 6104 PO Box 407, Cloverdale, WA 6985

Phone: (08) 9477 3788 Fax: (08) 9477 3766 Email: service@peerlessindustrialsystems.com www.peerlessindustrialsystems.com www.epigen.com.au