WEAR GUARD FINE LOAD PRODUCT BULLETIN

Product Description

A high performance wear resistant compound, containing small, high alumina, ceramic beads for maximum wear and abrasion resistance in areas conveying fine particles.

Features and benefits

- Designed to use in equipment that handles materials 3mm diameter and smaller
- Excellent adhesion to metal, ceramic and concrete surfaces
- Temperatures resistant to 150°C
- Fine particle size for smooth finish

Recommended Applications

- Protecting – exhausters, chutes & launderers fans for housings, crushers & breakers
- Repairing – pipe elbows, slurry pumps, pulverizers, screen decks, feeders, transfer points
- Recountouring – chippers, bins, hoppers, bunkers, separators, digester tables

Typical Physical Properties: 7 days cured @ 24°C

Colour	Grey
Mixed Consistency	Non sag Putty
% solids by volume	100
Cured Density ASTM D792	22 gm / cc
Mixing ratio (resin to hardener)	2:1 (weight or volume)
Work time @ 24°C	45 Minutes
Compressive Strength ASTM D695	75 MPa
Adhesive Tensile Shear ASTM D 1002	16.4 MPa
Cured Hardness Shore D ASTM D 2240	87D
Coverage	894 cm^2/kg @ 6mm
Temperature Resistance	Wet 60°C Dry 150°C

Chemical Resistance: **7 days room temperature cure (30 days immersion at 24°C)**

	U		
20% Sulphuric Acid		Methyl Ethyl Ketone	U
10% Sulphuric Acid	F	Toluene	F
10% Hydrochloric Acid	VG	Ammonia	VG
Chlorinated Solvents	F	Sodium Hydroxide	VG
Methanol	F	Kerosene	VG

KEY : VG = Very Good F = Fair U = Unsatisfactory

Epoxies are very good in water, saturated salt solution, leaded gasoline, mineral spirits, ASTM # 3 oil and propylene glycol. Epoxies are generally not recommended for long term exposure to concentrated acids and organic solvents.

Please consult Technical Service for other chemicals.

Surface Preparation

Proper surface preparation is essential to a successful application. The following procedure should be considered:

- First degrease the surface by using Devcon Cleaner Blend 300 (Part No 19515). All oil, grease and dirt must be removed before applying any epoxy material.
- All surfaces must be roughened, ideally by grit blasting (8 - 40 mesh grit), or by grinding with a coarse wheel or abrasive disc pad. An abrasive disc may be used provided white metal is revealed. This creates increased surface area for better adhesion. A 75-125 micron profile is desired for application. Do not "feather edge" epoxy material. Epoxy material must be "locked" in by defined edges and a good 75-125 micron profile.
- Metal that has been handling sea water or other salt solutions should be grit blasted and high pressure water blasted, then left overnight to allow any salts in the metal to "sweat" to the surface. Repeat blasting to "sweat out" all the soluble salts. A test for chloride contamination should be performed prior to epoxy application. The maximum soluble salts left on the substrate should be no more than 40 p.p.m(parts per million).
- All abrasive preparation should be followed by chemical cleaning with Devcon Cleaner Blend 300. This will help to remove all traces of sandblasting grit, oil, grease, dust or other foreign substances.
- Under cold working conditions, heating the repair area to 38 – 43°C immediately before applying any of Devcon's metal filled epoxies is recommended. This procedure dries off any moisture, contamination or solvents and assists the epoxy in achieving maximum adhesion to the substrate.
- All prepared surfaces should be lined as soon as possible, to eliminate any rusting of the prepared surface.
- For equipment that will be exposed to extreme vibration or impact, it is highly recommended that expanded metal be tack welded to the substrate and Wear Guard Fine Load trowelled in and over the expanded metal. Care should be taken to make sure there are no voids or air pockets.

Mixing: **Mix Ratio - Weight/Volume: 2 parts Resin to 1 part Hardener**
Wear Guard Fine Load is formulated to be a dense mix that can be applied easily to vertical and overhead surfaces without running or sagging. Add hardener to resin and mix thoroughly for about 4 minutes, being careful to mix material form bottom and sides of container. When mixing large quantities of resin and hardener, use a T shaped mixing paddle with a slow speed high torque drill at low speed (400 RPM)

Priming:
On areas where grit blasting is not practical, and expanded metal cannot be tack welded to the surface it is recommended to use Brushable Ceramic as a primer coat to the metal surface. Apply a thin coat (0.3 –0.45 mm) of Brushable Ceramic to the metal surface and allow to set up for a few hours. Then immediately apply Wear Guard Fine Load before the prime coat is fully cured. This prime coat will promote greater adhesion to a smooth surface.

Application
For best results, product should be kept and applied at room temperature. Wear Guard Fine Load can be applied when temperatures are between 10°C and 32°C. When temperatures are below 24°C, cure and work time will be longer, and above room temperature, cure and work time will be shorter. Using a putty knife or trowel, a very light coat should be applied to "wet out" the surface, allowing for 100% contact and further thickness buildup. Then continue to build up to desired thickness. Wear Guard Fine Load can be trowelled to a smooth finish with a few drops of water or by warming the trowel gently with a torch and lightly trowelling over the uncured wear system.

Cure:
Wear Guard Fine Load functional cure is 16 hours at 24°C at 12mm thick. The cure may be increased by applying external heat to 65°C for 2 to 3 hours. This can be done with a hot box, heat lamps or other heat sources. Never use a direct flame on epoxies.

PRECAUTION

For complete safety and handling information, please refer to the appropriate Material Safety Data Sheet prior to using this product.

Warranty: Devcon will replace any material found to be defective. Because the storage, handling and application of this material is beyond our control, we can accept no liability for the results obtained.

ORDERING INFORMATION

Stock No.	Unit Size
11400	10 kg
11405	4 kg

MANUFACTURED BY
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