



MEGAWEAR

Description:

A high density, micro alumina, ceramic bead-filled, toughened epoxy system for protecting equipment from wear and abrasion caused by handling and processing particulate matter in solid or slurry form.

Megawear has improved flexibility modifiers for enhanced impact resistance to prolong the service life of industrial plant and equipment, as well as a fast function cure time of 3 hours to reduce site downtime and prioritise plant availability.

The non-sag formulation of Megawear also ensures ease of use in shaping and mixing the epoxy and provides excellent hang-up on vertical and overhead surfaces.

Intended Use:

Coal lines
Handling equipment
Screw conveyors
Slurry pumps
High abrasion applications

Features:

Fast functional cure time of 3 hours
Non-Sag formulation - applies easily to vertical surfaces
Extremely wear resistant
High compressive strength
Excellent adhesion to most metals, cement and other surfaces.

**Typical
Physical
Properties:**

Technical data should be considered representative or typical only and should not be used for specification purposes.

Cured 7 Days @ 75°F (24°C)

Colour
Compressive Strength
Coverage
Mix Ratio by Weight
Pot Life @ 24°C
Functional Cure Time @ 24°C
Maximum Hardness Time @ 24°C
Solids by Volume
Specific Gravity
Temperature Resistance

Typical Values

Light Grey
>90 MPa
0.79m² @ 6mm thick
24:1 (Resin : Hardener)
20 minutes
3 hours @ 12mm thick
16 hours @ 12 mm thick
100
2.1 g/cm³
Wet: 60°C
Dry :120°C

Standard Tests**Surface
Preparation:**

Thoroughly clean the surface with a solvent such as Isopropanol Alcohol or Acetone to remove all oil, grease and dirt. Grit blast surface area with 8-40 mesh grit, or grind with a coarse wheel or abrasive disc pad, to create increased surface area for better adhesion (Caution: An abrasive disc pad can only be used provided white metal is revealed). Desired profile is 75-125µm, including defined edges (do not 'feather-edge' epoxy).

NOTE: For metals exposed to sea water or other salt solution, grit-blast and high-pressure waterblast the area, then leave overnight to allow any salts in the metal to "sweat" to the surface. Repeat blasting to "sweat out" all soluble salts. Perform chloride contamination test to determine soluble salt content (should be no more than 400 ppm).

Clean surface again with a solvent such as Isopropanol Alcohol or Acetone to remove all oil, grease and dirt or other foreign substances from the grit blasting.

Repair surface as soon as possible to eliminate any changes or surface contaminants.

WORKING CONDITIONS: Ideal temperature is 13°C to 32°C. In cold working conditions, heat repair area to 38-43°C immediately prior to applying epoxy to dry off any moisture, contamination, or solvents, as well as to assist epoxy in achieving maximum adhesion properties.

**Mixing
Instructions:**

It is strongly recommended that full units be mixed, as ratios are pre-measured.
Shake hardener if there is separation / settlement
Add hardener to resin
Mix thoroughly with spatula or similar tool (continuously scrape material away from sides and bottom of container) until a uniform, streak-free consistency is obtained,
OR
Place resin and hardener on a flat, disposable surface such as cardboard, plywood, or plastic sheet. Use a trowel or wide-blade tool to mix the material until a uniform streak-free consistency is obtained.

**Application
Instructions:**

ADDITIONAL SURFACE PREPARATION INFORMATION:

If grit blasting is not possible, and expandable metal cannot be used, apply Devcon® Brushable Ceramic at 280-460 µm to prime the metal surface. Allow to cure for approximately 2 hours, or until a fingernail can almost depress the primed surface. Immediately apply Megawear to the surface. DO NOT let the 'prime coat' fully cure before applying Megawear.

Spread mixed material on repair area at a minimum thickness of 6mm. Work firmly into substrate to ensure maximum surface contact.

Water may be used sparingly to assist trowelling to a smooth surface. Use the minimum quantity of water necessary. Best results 10 minutes after mixing.

Megawear fully cures in 16 hours, at which time it can be machined, drilled, or painted.

FOR BRIDGING LARGE GAPS OR HOLES

Place fiberglass sheet, expanded metal, or mechanical fasteners between repair area and Megawear prior to application.

FOR VERTICAL SURFACE APPLICATIONS

Megawear can be troweled up to 12mm thick without sagging.

FOR MAXIMUM PHYSICAL PROPERTIES

Cure at room temperature for 1.5 hours, then heat cure for 2 hours @ 90°C

FOR + 21°C APPLICATIONS

Applying epoxy at temperatures below 21°C lengthens functional cure and pot life times. Conversely, applying above 21°C shortens functional cure and pot life.

Storage:

Store at room temperature. When stored in original sealed containers, the minimum shelf life is two years.

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Warranty:

ITW Polymers & Fluids 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.

**Order
Information:**

<u>Item No.</u>	<u>Package Size</u>
D11485	5kg

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