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TECHNICAL DATA SHEET AND APPLICATION PROCEDURE

CERAPOXY-ULTRA is especially formulated two-part epoxy, ceramic filled wear compound, designed to protect surfaces and equipment from high abrasion wear and impact conditions.

Key advantage of our Epoxy Formulation

Enhanced Adhesion: The integration of fiber technology improves the epoxy's bonding strength to various substrates, ensuring durability and longevity of the coating.

Superior Abrasion and Wear Resistance: The inclusion of high-grade alumina particles, known for their hardness and wear resistance, significantly enhances the epoxy's ability to withstand abrasive forces.

Outstanding Impact and Crush Resistance: The formulation's design allows it to absorb and dissipate impact energy effectively, protecting underlying surfaces from damage.

Minimal Trapped Air Inclusions: The optimized processing techniques reduce the occurrence of air pockets within the cured epoxy, ensuring a uniform and robust coating.

- ✓ **Cerapoxy-Ultra** is classified as **non-dangerous goods** - simplifying handling, application, storage, & transportation.
- ✓ **Cerapoxy-Ultra** is made in Australia.

Applications:

Wear & Abrasion Protection

- ✓ **Chutes, hoppers, and silos** – for lining surfaces exposed to abrasive materials like ores, coal, or sand.
- ✓ **Cyclones and classifiers** – to reduce internal surface wear from high-velocity particles.
- ✓ **Screw conveyors and augers** – protecting flights and troughs from continuous abrasive flow.
- ✓ **Pump housings and impellers** – for protection against aggressive fluids and slurries.
- ✓ **Worn metal surfaces** – rebuilding eroded or damaged equipment back to original dimensions.

FEATURES	PROFILE	
	Colour	Off white Dark Grey
Abrasion and impact resistance	Mix Ratio by weight.	9.7:1 11:1
Graded alumina proppant, alumina chips/tabular alumina	Pot Life @25°C	20 minutes
Fibre technology	Cure Time @25°C	90 Minutes
Easy to mix and apply	Hardness	85 to 90 Shore D
Excellent adhesion to substrate	Density	2.16 kg/l
Non – Dangerous Good for transport	Compressive Strength	70 MPa
Manufactured in Australia	Flexural Strength	20 MPa
Range of colours	Kit Size	3, 7 and 40kg
Range of kit size	Coverage	7kg @ 6mm = 0.5m ²
	Packaging	Part A & B

CERAPOXY-Ultra Trowelling: Application Instructions

1. Surface Preparation

- ✓ All work must comply with fabrication standards.
- ✓ Fillet welds in corners are acceptable; however, any excessive imperfections or protrusions must be ground smooth.
- ✓ Abrasive blast all surfaces to a Class 2.5 finish (AS 1627) to achieve a textured profile for optimal adhesion.
- ✓ The epoxy must be applied within 4 hours or before any tarnishing occurs and must be stored under cover.
- ✓ Use approved blasting materials and techniques to remove all rust, mill scale, paint, moisture, oil, dust, weld slag, spatter, and other contaminants.
- ✓ Do not touch cleaned surfaces with bare hands. If contamination occurs, clean using site-approved solvents.
- ✓ Blast cleaning must not be conducted if:
 - The steel temperature is less than 5°C above the dew point.
 - Relative humidity exceeds 80%.
- ✓ After blasting, clean all surfaces using fibre brushes or dry air, with special attention to corners, intersections, and horizontal areas.

2. Epoxy Mixing Instructions

- ✓ Use a 2-part epoxy suitable for ceramic-to-steel bonding and capable of withstanding the application's maximum operating temperature.
- ✓ Do not use expired adhesive materials. Confirm shelf life prior to application.
- ✓ Mix only the amount that can be applied within the pot life.
- ✓ Mix Part A and Part B (both supplied as pastes) thoroughly in a clean container or on a mixing board until a uniform colour and consistency are achieved. Do not mix the epoxy directly on the prepared steel surface.
- ✓ For partial kits, premix each component individually before combining.
- ✓ Use a slow-speed mechanical mixer or spatula and mix for 2–4 minutes for complete blending.

3. Application Procedure

- ✓ Mark out the designated area to be trowelled.
- ✓ Apply a thin, even layer of mixed epoxy to the prepared surface using a trowel or spatula. This ensures proper wetting and strong adhesion.
- ✓ Build up to the required thickness (typically 10mm), applying additional layers as needed.
- ✓ In areas with fabrication irregularities, adjust epoxy thickness to achieve a consistent surface.
- ✓ For a smooth finish, lightly moisten the trowel or spatula with water and finish the surface accordingly.

4. Finishing

- ✓ Once applied, all trowelled surfaces must be scraped clean.
- ✓ Remove any excess adhesive using a damp cloth (with minimal water).
- ✓ Ensure no water penetrates the epoxy lining during or after cleanup.

5. Recording and Reporting

Maintain comprehensive records including:

- ✓ Environmental conditions (temperature, relative humidity, dew point).
- ✓ Surface preparation details.
- ✓ Surface profile.
- ✓ Coating application data.
- ✓ Coating testing results.
- ✓ Any defects, failures, or anomalies.

6. Inspection and Testing

- ✓ Visual Testing: Inspect epoxy-coated surfaces for defects and discontinuities after curing. Record and report any findings.

The image below illustrates items included in a complete kit

