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CeraFill - Ceramic Putty

High-Strength Alumina-Filled Repair & Protection Compound

MMC CeraFill Ceramic Putty M is a high-performance, alumina-filled ceramic paste formulated to rebuild, restore, and protect equipment surfaces subjected to severe wear, erosion, and abrasion. With its smooth, workable consistency, it is ideally suited for repair applications ranging from 1–10 mm thickness. For enhanced durability and long-term protection, repaired areas can be overcoated with MMC CeraFill Ceramic.

The putty's fine-particle alumina content provides outstanding hardness and wear resistance while ensuring strong adhesion to metal substrates. Its smooth finish makes it ideal for precision repairs, restoration of surface profiles, and rectification of worn areas. In addition, MMC CeraFill Ceramic Putty serves as a reliable adhesive and filler in demanding wear environments, making it a versatile solution across multiple industries.

Typical Applications:

Filling deep crevices, cracks, and pits in worn equipment.

Rectification of weld profiles prior to ceramic or protective lining.

Grouting wear plates with tight (≈ 3 mm) clearances.

Used as an adhesive for ceramic tiles in high-wear areas.

Base build-up layer before applying MMC CeraFill Ceramic Putty.

FEATURES	PROFILE	
Abrasion resistance	Colour	White (Pigments can be mixed)
Fine grade Alumina	Mix Ratio by weight.	4:1
Easy to mix and apply	Pot Life @25°C	30 minutes
Excellent adhesion to substrate	Cure Time @25°C	6 Hours
Manufactured in Australia	Density	1.99g cm
Dry heat resistance to 90Deg C	Kit Size	1kg
Range of colours	Coverage	1kg @ 1mm = 0.48m ²
Range of kit size	Packaging	Part A & B
100% solids		

MMC CeraFill Ceramic Putty Part A

Application Instructions

Surface Preparation:

- All oil, grease, and surface contaminants must be removed using approved cleaning methods (e.g., solvent cleaning or detergent wash).
- Abrasive blast the substrate to achieve a surface profile of **75–100 microns** and a **near-white metal finish**.
- For small or difficult-to-reach areas, mechanical preparation using hand tools or power tools may be used to clean and abrade the surface. Ensure the substrate is clean, dry, and free from dust before application.

Mixing:

- Ensure the material temperature is between **15°C and 30°C** prior to mixing.
- Combine **Part A and Part B** thoroughly by hand or slow-speed mechanical stirrer, making sure material on the container walls and bottom is fully dispersed.
- Mix until a **uniform colour and consistency** is achieved. Avoid aeration during mixing.

Application:

- Apply with Spatula/Trowel and spread evenly, press firmly to remove trapped air.
- Ensure complete contact with the metal surface.
- For deeper rebuilds, apply in multiple layers, allowing each layer to partially cure (tacky stage) before the next.
- Maintain a minimum overlap of 10–20 mm beyond the damaged area to ensure full protection.
- Feather the edges smoothly to avoid sharp transitions that may lead to stress concentration.
- If ambient temperature is low, warm the surface or material slightly (not exceeding 40°C) to improve flow and adhesion.
- Use masking tape or formwork to shape or contain the putty for precise buildup.
- After application, inspect for voids or trapped air and compact the surface again with the spatula.
- Clean tools immediately after use with solvent before the material hardens.
- Allow the putty to fully **cure as per technical data sheet** before placing equipment back into service.

Curing

- Initial cure: Room temperature (25°C) for 4–8 hours.
- Full cure: 16–24 hours (depending on formulation).
- Accelerated cure: Can be heat-cured (e.g., 60°C for 2 hours) for faster turnaround.
- Do not expose to service conditions until fully cured.

Benefits

- Restores worn surfaces quickly and effectively.
- Reduces downtime by enabling in-situ repairs.
- Improves equipment performance and extends service life.
- Provides a cost-effective alternative to replacement.
- Compatible with a range of wear-protection linings and coatings.

Safety:

- **Read the Safety Data Sheet (SDS)** before use.
- Wear appropriate **personal protective equipment (PPE)** including gloves, eye protection, and respirators where required.
- Ensure adequate ventilation during application and curing.

