

**ResSI EPO Carbide Putty 90** is a two-component, solvent-free, non-rusting Silicon Carbide-filled epoxy repair compound designed for rebuilding, filling, and repairing worn or damaged surfaces. When mixed, the base and hardener react to form a high-strength compound. it is a high-performance, extremely hard composite that provides outstanding abrasion and erosion resistance, excellent chemical stability, and superior mechanical strength. Due to the high hardness of silicon carbide particles, the cured material significantly outperforms standard metal-filled epoxies in highly abrasive environments.

## FEATURES & BENEFITS

- ✓ Two-component, easy-to-mix and apply.
- ✓ Can be applied on vertical surfaces due to its non-sagging properties.
- ✓ Excellent adhesion to most rigid substrates.
- ✓ Can be drilled, tapped, machined, or sanded after curing.
- ✓ Resistant to oil, water, fuels, and many industrial chemicals.
- ✓ Ideal for repairing worn parts, cracks, holes, and surface defects.
- ✓ High compressive and tensile strength ensuring durable repairs.

## RECOMMENDED USES

- ✓ Repair and protection of surfaces exposed to severe abrasion and particle erosion.
- ✓ Rebuilding worn pump casings, impellers, and valves in abrasive service conditions.
- ✓ Protection of pipelines, bends, and elbows handling slurry or solid-laden fluids.
- ✓ Lining of chutes, hoppers, and conveyors subjected to continuous material impact.
- ✓ Repair of cyclones and separators in mining, cement, and mineral processing industries.
- ✓ Protection of tanks and vessels exposed to abrasive chemicals and solid suspensions.
- ✓ Heavy-duty repair of concrete and steel surfaces in industrial and processing plants.

## SURFACE PREPARATION

All surfaces must be clean, dry, and free from oil, grease, rust, scale, and contaminants. For best adhesion, the substrate should be roughened by abrasive blasting or mechanical abrasion to achieve a minimum surface profile of 75 microns. After surface preparation, clean thoroughly with a suitable solvent cleaner to remove all dust and residues before applying the compound.

## APPLICATION

Before use, thoroughly mix the Base and Hardener components in the ratio of 100:33 by weight until a uniform colour and smooth consistency are obtained. The mixed material should be applied immediately using a putty knife, spatula, or trowel.

The working time of the 100gm mixed material is approximately 90 minutes at 25°C, depending on ambient temperature. Machining, drilling, or overcoating may be carried out once the compound has fully cured, typically after 24 hours at 25°C. Clean all tools and application equipment promptly after use with a suitable epoxy thinner or solvent before the material hardens.

## SHELF LIFE

12 months from date of manufacture (sealed containers).

## TECHNICAL PROPERTIES

Property	Typical Data
Type	Two-component (Base + Hardener)
Mixing Ratio (by weight)	100:33
Appearance	Light Grey Paste
Density	1.46 ± 0.05 g/cm <sup>3</sup> (mixed)
Pot Life	70-90 minutes (100gm) @ 25°C
Touch Dry	4-5 hours @ 25°C
Full Cure	24 hours @ 25°C (faster with heat)
Compressive Strength	> 95 MPa
Flexural Strength	> 40 MPa
Temperature Resistance	Up to 90°C (dry service)
Solids	95% or above

## PACK SIZE

Resi EPO Carbide Putty 90 is available in the following pack sizes:

250 g and 85 g (Base + Hardener)  
500 g and 170 g (Base + Hardener)

## HEALTH AND SAFETY

Resi EPO Carbide Putty 90 contains epoxy resins and amine hardeners. Avoid contact with skin and eyes and do not inhale vapors. Always wear gloves, goggles, and suitable protective clothing during use. Ensure adequate ventilation in the working area. In case of contact, wash immediately with soap and water and seek medical attention if irritation occurs. Refer to the Material Safety Data Sheet (MSDS) for complete safety and handling information.