

ResSI EPO Copper Putty 90 is a two-component, solvent-free, high copper-filled epoxy repair compound designed for rebuilding, filling, and repairing copper and non-ferrous metal surfaces. When mixed, the base and hardener react to form a high-strength, metallic compound. It is a premium, high-performance epoxy putty, offering superior thermal conductivity, excellent corrosion resistance, and a natural copper appearance. The cured material closely matches the thermal and chemical behavior of copper substrates, making it ideal for precision repairs where compatibility and conductivity are critical.

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 strength ensuring durable repairs.

RECOMMENDED USES

- ✓ Repair of copper pipes, fittings, valves, elbows, heat exchangers, condensers and other copper-based plumbing and process components.
- ✓ Rebuilding worn areas, restoring dimensions, and resurfacing copper, brass, bronze and non-ferrous metal parts.
- ✓ Filling cracks, holes, leaks, corrosion pits, and surface irregularities in copper systems.
- ✓ High-performance repairs in HVAC/R systems, heating lines, potable water systems and industrial equipment requiring thermal conductivity.
- ✓ Suitable for workshops, marine, plumbing maintenance and process industries.

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	Copper Brown paste
Density	1.71 ± 0.05 g/cm ³ (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	> 91 MPa
Flexural Strength	> 46 MPa
Temperature Resistance	Up to 90°C (dry service)
Solids	95% or above

PACK SIZE

Ressi EPO Copper 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

Ressi EPO Copper 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.