MCOR™ EXT™ Underwater Epoxy Stick Product Technical Data

Ready-to-use underwater epoxy repair compound stick

MCOR[™] EXT[™] Underwater Epoxy Stick is a two-component, fiber reinforced, ready-to-use wet or underwater "cold" repair polymer compound putty-stick. MCOR[™] EXT[™] Underwater Epoxy Stick can be drilled, tapped, machined, ground, dressed, filed and painted. Terrific for repairs, filling, patching, and plugging leaks. MCOR[™] EXT[™] Underwater Epoxy Stick bonds to metals including aluminum; will also bond to fiberglass, wood, concrete, glass and most plastics.

MCOR™ EXT™ Underwater Epoxy Stick works simply by cutting the amount desired, kneading by hand to a uniform consistency and apply. After mixing, it forms an industrial-strength polymer compound that can be molded into shapes or used to build up, patch and/or repair. Once cured it has high compressive strength and great adhesion on wet and submersed surfaces. As EXT™ Underwater Epoxy Stick approaches its final curing stages, it is designed to stop leaks in pipes and tanks, and can be used also as a filler for pitting or correcting oversized bolt holes, etc.

Applications Include

- All-purpose wet or underwater repairs
- · Seal and plug leaks
- · General filling and patching

Features

- Wet and underwater grade, including marine repairs
- Extended pot life for drivers time to reach their target
- Adhesion to metals, fiberglass, wood, concrete, glass and most plastics
- Can be drilled, tapped, sanded, and machined
- Ease of application
- · Ready-to-use hand mix
- Can be drilled, tapped, sanded, and machined
- 100% solids, no VOCs, no solvents

1 CUT: Remove required amount of putty.

MIX: Thoroughly knead putty with fingers to a uniform color.

3 APPLY: Press putty firmly to the surface to be repaired.



Surface Preparation

The success of any coating application is directly proportional to the completeness of the substrate preparation and the care the application crew puts into the application. Surface must be clean and sound.

Before preparing substrate, please inspect and remove oil, grease, or other contaminants. Surface profile will maximize bonding. Abrade in order to achieve a clean surface with a minimum profile of 75 microns (3 mils); remove dust and debris.

Application Method

Material is supplied in ready to use unit.

Cut required amount of material from stick. Remove clear plastic wrapper from cut section. To mix, first twist the material to produce a spiral pattern of resin and hardener. Next, knead material for 3 - 5 minutes or until a uniform color is achieved. Firmly apply for patch, repair or bonding. For a smooth finish, wet a cloth or gloved finger with water and smooth.

NOTE: for sealing leaks, during mixing phase, continue kneading until material reaches near-end of its workability. At this phase viscosity will be high allowing the proper rheological state to plug an active leak. Apply material and hold down with pressure for a few moments to ensure backpressure is eliminated.

Film Thickness

MCORTM EXTTM Underwater Epoxy Stick is a thixotropic material intended to be applied in various controlled applications for specific needs, and can be further controlled by sanding/machining for precision dressing. Intended as a cladding epoxy or filler at various thicknesses, the MCORTM EXTTM Underwater Epoxy Stick can be applied at any thickness up to 2 cm (1.25 inch) per pass without sagging, without mechanical support; and thicker if applied in multiple passes or with mechanical support (reinforcement mesh, weld rods, metal and fabric scrim).

Packaging & Color

A unit is putty stick, ready-to-use.
MCOR™ EXT™ Underwater Epoxy Stick is available in:

115g unit (18cm length stick)
 White/Off-White (W)

Storage & Handling

Shelf life: 18 months, sealed. Store in a dry area away from direct sunlight.

Thinning

MCOR™ does not recommend thinning this material.



Important! Although the technical details and recommendations contained in this data sheet correspond to the best of our knowledge and experience, all the above information must, in every case be taken as merely indicative and subject to confirmation after long-term practical applications; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving for the use of the product. The sole liability of MCOR and Epoxytec International, Inc. for any claims out of the manufacturer's use of sale of its products shall be for the buver's purchase price.



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Safety

Consult Safety Data Sheet (SDS) for all material safety information.

WARNING: May be a skin irritant to person with sensitive skin. Such person should use gloves and wash hands after use.

Technical Properties

Type: Extruded epoxy compound putty

Base component (consistency): Paste/putty
Base component (color): White/Off-white
Solidified component (consistency): Paste/putty

Solidified component (color): Green

Finish: Matte, White/Off-white

Mixing ratio N/A
Solids by volume: ASTM D 2697 100%
Solvents (VOC) by volume: 0%

Bond strength (steel): ASTM D 4541 75 Bar (1100 psi)
Bond strength (concrete, wet): ASTM D 4541 Substrate failure
Durometer 72 Shore D

Lap Shear Tensile Strength (steel, 1"x1"x1/16"): 6.2 MPa (900 lbs)

Shrinkage: <1%

Electrical resistance: 30,000 megohm-cm

Dielectric strength 300 volts/mil

Tensile strength:

ASTM D 638

20.6 MPa (3,000 psi)

Flexural strength:

ASTM D 790

38 MPa (5,500 psi)

Compressive strength:

85 MPa (12,350 psi)

Temperature exposure (continuous): $-40 \, ^{\circ}\text{C} - 121 \, ^{\circ}\text{C} \, (-40 \, ^{\circ}\text{F} - 250 \, ^{\circ}\text{F})$ Temperature exposure (intermittent): $-40 \, ^{\circ}\text{C} - 149 \, ^{\circ}\text{C} \, (-40 \, ^{\circ}\text{F} - 300 \, ^{\circ}\text{F})$ Pot life: $20 - 25 \, \text{min.} \, @25 \, ^{\circ}\text{C} \, @ \, 50g \, \text{mass}$ Gel time (initial set, max working time): $25 - 30 \, \text{min.} \, @25 \, ^{\circ}\text{C} \, @ \, 50g \, \text{mass}$ Complete cure (return-to-service) $60 - 90 \, \text{min.} \, @25 \, ^{\circ}\text{C} \, @ \, 50g \, \text{mass}$





