



Titanium Epoxy Stick

Product Information

Description

Celmend Titanium is a hand-mixable, room-temperature curing, epoxy putty stick specifically formulated to bond and repair materials that will be exposed to high temperatures in industrial maintenance applications. It bonds tenaciously to metals and cures tough and hard, with nearly no shrinkage. This industrial-strength product far outperforms conventional epoxy putties at high temperatures in lap shear tensile strength testing. Each stick contains pre-measured portions of base and activator. No measuring or mixing tools are needed – just cut, mix and apply. When mixed to a uniform color, the combined materials form a polymer compound that can be molded and shaped into a variety of forms and repairs.

Basic uses

Celmend Titanium can be used to repair iron pipes, tanks, equipment, castings, tools, stripped threads, molds, ductwork and other projects to be exposed to high temperatures. Use it to bond metals in industrial maintenance applications, and to fill cracks and holes.

Benefits

- Solventless.
- Low Odor.
- Long pot life.
- Service temperature -40 to 500°F (-40 to 260°C).

Application Limitations

- Does not adhere to polyethylene, polypropylene or PTFE.
- Not intended for applications exceeding 500°F (260°C).
- Not intended to use in structural applications.
- Customer should conduct testing to determine suitability for any specific application.

How to use

Surface preparation: To achieve optimum adhesion, surfaces must be clean and free of oil, grease, corrosion and dirt. Scuffing or sanding the surface prior to cleaning helps ensure a good bond.

Mixing and application: Wear impermeable gloves when mixing or handling Celmend Titanium. Twist or cut off required amount, then mix by kneading with gloved fingers to a uniform color. If mixing is difficult, warm the product to room temperature or slightly above. Apply to the repair surface within 1 hour of mixing. Force into any cracks or holes to be filled and strike off excess material before hardening begins, preferably with a tool moistened with clean water. Heating Celmend Titanium or applying to warm surfaces will accelerate the cure. For a smooth cured appearance, rub with water or a damp cloth prior to hardening. After 2 hours the epoxy will form a tenacious bond. Curing at higher temperatures (150°F/65°C) will provide a stronger bond and faster hardening; lower temperatures will retard the cure. After 8 hours at room temperature, Celmend Titanium can be drilled, tapped, and sanded.

Color

Machine-grey color

Packaging

Packaged in a reusable clear plastic tube with a plastic friction top, 24 tubes per carton.

Shelf Life

One year from date of shipment when stored in original, unopened container in a dry area at temperatures below 75°F (24°C).

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Product Data Sheet

Performance Data

Properties	Results	Test Methods
Uncured Properties		
Work life at 75°F (24°C)	1 hour	-
Density	16.5 lb/gl (1.60 g/cm ³)	-
Functional cure (lap shear tensile strength = 200 psi)	8 hours	-
Cure time to full cure at 70°F (21°C)	3 days	-
Cured Mechanical Properties		
Shore D hardness at room temperature	80	ASTM D2240
Lap shear tensile strength (steel to steel)	-	-
25 hr. cure at room temperature	-	-
Tested at 75°F (24°C)	800 psi (5.6 MPa)	ASTM D1002
Tested at 400°F (204°C)	600 psi (4.2 MPa)	- Tested
at 500°F (260°C)	300 psi (2.45 MPa)	-
Compressive strength	8000 psi (55 Mpa)	-
Shrinkage	<1%	ASTM D2566
Temperature limits	-	-
Continuous	-40 to 450°F (-40 to 232°C)	-
Intermittent	-40 to 500°F (-40 to 260°C)	-
Chemical resistance	Resistant to hydrocarbons, ketones, alcohols, esters, halocarbons, aqueous salt solutions, dilute acids and bases.	-
Cured Electrical Properties		
Electrical resistance	30,000 megohms-cm	ASTM D257
Dielectric strength	300 volts/mil	ASTM D149

**Typical properties are for information only, not for purposes of specification. The data above represents product performance in ideal laboratory conditions. Individual users' experience may vary depending on application conditions.*