QuikTitanium™

Product description

QuikTitanium is a hand kneadable, titanium-reinforced, epoxy putty adhesive sealant for high temperature applications. It comes in a convenient concentric stick form with the curing agent encapsulated in a contrasting color base. The putty consistency provides a no-mess gap-filling application without the use of tools.

Color

Golden brown titanium color.

Basic uses

QuikTitanium bonds and repairs materials that will be exposed to high temperatures for use in a variety of industrial maintenance applications. It can be used to repair tanks, iron pipes, equipment, tools, stripped threads, blow holes, patterns, castings, molds and ductwork.

Benefits

- Solventless.
- Low odor.
- Longer pot life.
- Service temperature -40 to 500˚F (-40 to 260˚C).

Application limitations

- Not intended for use in structural applications.

Performance Data*

Properties	Results	Test Method
Uncured Properties		
Work life at 75˚F (24˚C)	1.5 to 2 hours	
Non-volatile content	>99%	
Density	16.5 lb/gal. (1.90 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 75˚F (24˚C)	80	ASTM D2240
at 500˚F (260˚C)	48	
Lap shear tensile strength (Stl-Stl)		
Cured at 75˚F (24˚C) for 24 hrs	250 psi	ASTM D1002
Cured at 150˚F (65˚C) for 24 hrs	750 psi	
High temp lap shear strength (Stl-Stl)		
Cured at 75˚F (24˚C) for 24 hrs + 500˚F (260˚C) for 1 hr.	250 psi	ASTM D1002
Compressive strength	8,000 psi	ASTM D695
Shrinkage	<1%	ASTM D2566
Thermal gravimetric analysis		
5% wt. Loss	365˚C	
10% wt. Loss	390˚C	
Tg by DSC	57˚C	
Upper 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, and dilute acids and bases	
Cured Electrical Properties		
Electrical resistance	30,000 megohms	ASTM D257
Dielectric strength	300 volts/mil	ASTM D149

** Typical properties are for information only, not for purposes of specification.*

Packaging

Packaged in a reusable clear plastic tube with a plastic friction top, 12 or 24 tubes per display carton, two display cartons in a master carton.

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: Use of rubber or plastic gloves is strongly recommended when mixing and applying QuikTitanium. Twist or cut off required amount, then mix by kneading with gloved fingers to a uniform color. If mixing is difficult, warm QuikTitanium 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 QuikTitanium or applying to warm surfaces will accelerate the cure.

For a smooth cured appearance, rub with water or damp cloth prior to hardening. After 2 hours the epoxy will form a tenacious bond. Curing at higher temperatures (150˚ F) will provide a stronger bond and faster hardening; lower temperatures will retard the cure. After 8 hours at room temperature QuikTitanium can be drilled, tapped, and sanded.

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

Health precautions

- May be a respiratory irritant. Contains epoxy resin and amines.
- May be an eye irritant. For eye contact, flush with water for 15 minutes. Call a physician.
- May be a skin irritant. For skin contact and after use, wash hands thoroughly with soap and water. Use of thin plastic or rubber gloves is recommended for sensitive skin.
- May be harmful if swallowed. If swallowed, do not induce vomiting; call a physician.
- Keep out of reach of children.
- When sanding cured putty and substrate, use protective eye wear and dust mask.

For additional health and safety information, consult a Material Safety Data Sheet.

Availability and cost

Polymeric Systems, Inc., is a part of Whitford Worldwide. For more information, please contact Polymeric Systems or Whitford Plastics Ltd. at:

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