

EPOXY CLAY STEEL

Steel-Reinforced Epoxy Putty

Product Description

Pioneer Epoxy Clay Steel (Steel-Reinforced Epoxy) is a hand-mixable, steel-reinforced, non-rusting epoxy putty that quickly repairs or rebuilds anything made of steel. After mixing it forms an industrial-strength polymer compound that can be molded into shapes components. Each handy stick contains pre-measured portions of activator and base throughout – just cut, mix, and apply. No measuring or mixing tools are necessary. The consistency (like modeling clay) eliminates drips and runs and facilitates adhesion to the substrate.



Key Features

- Steel-reinforced epoxy putty
- Hand-moldable, no tools required for use
- "No-mess" application
- Fast-setting
- Functional cure after 1 hour (ready to be sawed, sanded, tapped, drilled, carved, machined, filed and painted)
- Suitable for interior and exterior use
- Safe for use with potable water
- 100% solids content
- Solvent-free formulation
- Non-shrinkable
- Non-flammable

Product Specifications / Typical Properties / Physical Characteristics

Table 1. UNCURED STATE*

Parameters	Results
Color	Outer core: Dark metallic gray Inner core: Black
Non-volatile content	100%
Density	18.5lb/gal (2.2 g/cm ³)
Potlife @ 24°C	3-5mins
Functional Cure	1 hour
Full Cure @ 21°C	24 hours
Shelf life	18 months from manufacturing date

Table 2:

Physical Properties: CURED STATE*

Parameters	Results
Shore D hardness @full cure ASTM D2240	80
Lap shear tensile strength ASTM D1002	On steel 900 psi (6.2 MPa)
Compressive Strength ASTM D695	8000 psi (55 MPa)
Shrinkage ASTM D2566	<1%
Temperature limits	Continuous -40 to 250°F (-40 to 121°C) Intermittent -40 to 300°F (-40 to 149°C)
Chemical resistance	Resistant to hydrocarbons, esters, ketones, alcohols, halocarbons, aqueous salt solutions and dilute acids and bases
Electrical resistance ASTM D257	30,000 megohms-cm
Dielectric strength ASTM D149	300 volts/mil

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

Applications

Rebuilds

- Stripped threads
- Small machine parts
- Rust-damaged metal
- Leaking pipes
- Duct work
- Cracks and voids in metals

Forms

- Custom tools, handles
- Prototype parts
- Anchor machines

LIMITATIONS

Not for polyethylene, polypropylene or PTFE. Not intended for use in structural applications.

Application Procedure

A. 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.

B. Mixing

Wear impervious gloves when mixing or handling uncured product.

1. Twist or cut off required amount with gloved fingers.
2. Mix by kneading to a uniform color. Use damp fingers for easier mixing and application. If mixing is difficult, warm Pioneer Epoxy Clay Steel to room temperature or slightly above.
3. Apply to the repair surface within 2 minutes of mixing. Force into cracks or holes. When applying to a damp, wet or slowly leaking area, work the mixed material forcefully into the surface and apply pressure until adhesion begins to take effect.
4. Strike off excess material before hardening begins, preferably with a tool moistened with clean water. For a smooth cured appearance, rub with water or a damp cloth prior to hardening.

Packaging

SKU	Packaging	Weight, grams	Quantity per box
3 inches epoxy putty stick	Blistered	50	24 pcs
1.5 inch epoxy putty stick	Blistered	25	24 pcs

Storage

Store in a cool, dry place, preferably 30°C maximum.

Shelf Life

18 months from manufacturing date when kept in a sealed, unopened pack following the required storage condition.

Health and Safety Precautions

WARNING

- Contains Epoxy Resin. Epoxies are skin/eye irritants and known sensitizers. Direct product contact may cause an allergic reaction in some individuals. Avoid skin/eye contact. Wear impermeable gloves when mixing or handling uncured product.
- Inhalation of dust may be harmful. Avoid inhalation of dust. Wear dust mask and protective eyewear when sanding cured product.
- Ingestion of product may be harmful. Avoid ingestion.
- Turn off power when doing electrical repairs.

If on skin or hair: Wash with plenty of soap and water. Take off contaminated clothing and wash before re-use. If skin irritation or rash occurs, get medical attention.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

If ingested: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Collect spillage.

KEEP OUT OF REACH OF CHILDREN.

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Pioneer Adhesives, Inc.
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ISO 9001:2015 and ISO 14001:2015 Certified

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