Kneadaseal® Electrical Sealing/Potting Compound

Product description

Kneadaseal is a hand-mixable, UL-approved, epoxy putty compound that mixes easily in minutes and hardens in one hour to provide water- and vaportight seals for cable fittings and electrical connectors. Kneadaseal is in a handy concentric putty stick form with the curing agent encapsulated in the contrasting color base material. Its dough-like consistency eliminates drips and runs for a "no mess" application with no tools required for use. Kneadaseal cures to a hard, rigid material that is resistant to hydrocarbons, ketones, esters and alcohols with excellent adhesion to most substrates, including metals and ceramics.

Basic uses

After proper mixing, Kneadaseal can be forced into the area between conductors and cable armor to form an effective seal. Damming is not required. After about an hour, Kneadaseal will harden and form a tenacious bond. Full cure is achieved in 24 hours.

Benefits

- No shrinkage.
- No exotherm.
- Complies with Ozone Transport Commission (OTC) Model Rule, California Air Resources Board (CARB), and U.S. Federal Consumer regulations on VOC content.

Application limitations

- Does not adhere to polyethylene, polypropylene or PTFE.
- Not intended for use in structural applications.

Cured color

Pale Yellow.

Packaging

Available as a 4 oz. (112 g.), 7/8" x 7" (21 mm x17.8 cm) stick in a reusable clear plastic tube with a plastic friction end cap, packed 24 tubes per carton.

Applicable standards

Kneadaseal complies with the Underwriters Laboratory requirements for sealing compounds, E157546 Class I, Groups A, B, C and D; Class II, Groups E, F and G, in cable sealing fittings or lead seals for use in hazardous locations. The product complies with the requirements covering the class following exposure to acetone, ammonium hydroxide, ethyl acetate, acetic acid, ASTM Reference Fuel C, benzene, n-hexane, furfural, 2-nitropropane, methanol, methylethyl ketone, ethylenedichloride and diethylether.

How to use

Surface preparation: To achieve optimum adhesion, surfaces must be clean and free of oil, grease, and dirt.

Mixing and application: Mix and apply the product at temperatures between 41°F and 98.6°F (5°C and 37°C). At temperatures below 41°F (5°C) the product becomes stiff and difficult to mix properly. At temperatures above 98.6°F (37°C) the curing reaction is accelerated and application is difficult to complete before the product gels.

Wear impervious gloves when mixing or handling uncured product. Twist or cut off required amount. To mix, knead with gloved fingers approximately 1 to 2 minutes until a uniform color. If mixing is

Health precautions

- Contains Epoxy and Amine Resins. 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.
- KEEP OUT OF REACH OF CHILDREN.

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

difficult, warm Kneadaseal to room temperature or slightly above. Apply to the surface within 30 to 40 minutes of mixing. Force into fittings and strike off excess material. Remove excess material before hardening begins. After 45 to 60 minutes the epoxy will harden and start to form a tenacious bond. Functional cure occurs in 2 to 3 hours. Full cure is achieved in 24 hours.

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

Performance Data*

Properties	Results	Test Methods
Uncured Properties		
Density	15.9 lb/gl (1.91 g/cm^3)	
Working time at 68°F (20°C)	45 to 60 minutes	
Shrinkage during cure	<1%	
Application temperature limits	41°F to 98.6°F (5°C to 37°C)	
Cured Mechanical Properties		
Hardness, Shore D, full cure 24 hrs.	70	ASTM D2240
Lap shear tensile strength on steel, 1˝ x 1˝ x 1/16˝ (25 x 25 x 1.6 mm)	300 lb (2 MPa)	ASTM D1002
Compressive strength	8,000 psi (55 MPa)	ASTM D695
Glass transition temperature (Tg) by DSC	147°F (64°C)	
Dimensional change, solvent vapor exposure	0 to 3%	UL 698
Service temperature limits		
Continuous	-40°F to +250°F (-40°C to +121°C)	
Intermittent	-40°F to +300°F (-40°C to +149°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-cm	ASTM D257
Dielectric strength at 0.25 in (6 mm).	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.*

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