

KNEAD IT STEEL

Epoxy Repair System

TECHNICAL DATA SHEET

Description

Selleys® Knead It Steel is a fast-setting, hand-kneadable epoxy repair compound for rebuilding, reshaping or repairing metal substrates. Supplied as a roll with black hardener encapsulated in grey resin that cures to a dark grey finish after mixing. Once cured, it can be machined, drilled, filed, sawed, sanded or painted.

Features

- Easy to use - no mess
- Non-sag, does not run or drip
- Heat Resistant up to 120 °C
- Good gap filling properties
- Adheres to most substrates*
- Can be machined, drilled, sawed, sanded, filed, and painted one hour after mixing.

Usages

Suitable for:

- Fast and long-lasting repairs of small parts, radiators, and metal fuel tanks.
- Repairing rust-damaged equipment bodies, metal gutters, downspouts, and ductwork.
- Fabrication and replacement of custom gaskets, nuts & bolts for machines, etc.
- Sealing and filling small holes, cracks and voids in iron pipes, tanks, gutter, tools and metal equipment

Product and Technical Information

Product Data		Technical Performance	
Technology	Epoxy Resin + Hardener	Working Time @ 25 °C	4 minutes
Cure Mechanism	Chemical curing	Initial Cure	60 minutes
Specific Gravity (A+B)	Approx. 2.0	Full Cure	24 hours
Shore D Hardness ¹	74	Lap Shear Strength ²	7.0 MPa
Non-Volatile Content	100%	Compressive Strength	45.9 – 82.7 MPa
Colour (Part A)	Grey	Dielectric Strength	300 V/mil
Colour (Part B)	Black	Electrical Resistance	30,000 MΩ
Colour (A+B)	Dark Grey	Application Temperature	+5 °C to +40 °C
Shelf life	24 months	Service Temperature	-40 °C to +120 °C
		Storage Temperature	+5 °C to +25 °C

The table results are based on current product material data, quality test methods, and testing conditions, such as temperature, moisture, and substrate.

Substrate*

Porous

- Masonry
- Concrete
- Timber

Non-porous

- Ferrous metal – Stainless steel, cast iron, carbon steel, etc.
- Non-ferrous metal – Aluminium, etc
- Glass
- Most plastics³

EXCEPTION

- ³Not for use on polyethylene, polypropylene or PTFE (Teflon®).
- Pre-test compatibility with substrates before use.

Method of Applications

Surface

- Ensure all surfaces to be bonded are clean, sound, and free of dust, oil, rust, and other contaminants.
- Surface abrasion can improve bond strength for metal substrates.
- Remove all existing adhesives or sealants before use on remedial work.

Packaging

- Remove the cap from the container and take out the compound.
- Remove the disc and cut off the required amount.
- Replace the disc and return the remaining compound to storage.

Application

- Wear gloves when handling the product.
- Knead the material by hand until the colour is uniform.
- If mixing is difficult, let the material reach room temperature.
- Apply the compound to the surface within 2 minutes of mixing.
- Press the compound into the surface until adhesion starts.
- Shape as needed. Use a clean plastic wrapper to assist application and press firmly into place.
- For a smooth finish, remove excess compound and wipe the surface with clean water or a damp cloth before hardening. Knead It Steel will harden in 3-5 minutes and form a strong bond. Allow extra curing time if the temperature is below 20°C.
- After 60 minutes, Knead It Steel can be drilled, sanded, machined, filed, sawed, and painted.

Chemical Resistance

- Resistant to water, hydrocarbons, aqueous salt solutions, and dilute acids and bases.
- For suitability, pre-test a small, cured sample before use.

Cleaning

- Excess compound on tools and equipment can be removed with damp cloth before curing.
- Cured compound can be removed mechanically.

Limitations

- Do not apply if the ambient or substrate surface temperature is below +5 °C or above +40 °C. Optimal application temperature is between +5 °C and +25 °C.
- Do not use for applications exceeding the temperature requirements above +120 °C continuously.
- At low temperatures, curing speed slows.
- Not recommended for filling joints and cracks subject to movement as the cured product is extremely hard and not flexible.
- Not intended for use in structural applications.
- **Selleys®** recommends users conduct their own risk assessment before use to determine the product's suitability. A sample should be applied to the intended area to ensure acceptable appearance, finish, and performance on the substrate.

Storage

- Store unopened packaging in a cool, dry place and away from direct sunlight.
- Avoid freezing the product.
- Unopened packaging is best used within 24 months from the date of manufacture.

Packaging

Size	Available colour	Item Code
Plastic tube - 110 g	Part A - Grey	
Blister - 50 g	Part B - Black	

Health and Safety

This information is available in the product Safety Data Sheet (SDS) on our website at www.selleys.com.au. Refer to the product label for full conditions.

Notes

¹Shore D Hardness: tested according to ASTM D2240

²Single lap shear strength: tested according to ASTM D1002 (on steel: 25 x 25 x 1.5mm)

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