

# KNEAD IT UNDERWATER

## Description

Selleys Knead It Underwater is a hand kneadable, fast setting co-extruded epoxy repair system that can be used to rebuild, reshape or repair damp, wet or underwater substrates. It comes in a handy roll with the white hardener encapsulated in the aqua green resin and turns to an off-white colour after mixing. Once fully cured, it can be machined, drilled, sawed, filed and painted.

## Product Information

Packaging	Size
Blister	50g

## Uses

Suitable for:

- Fast and permanent repairs to damp and wet substrates, and for underwater repairs.
- Patching dings, scratches, cuts, gouges and holes in: fibreglass, metal, wooden boat decks and hulls.
- Repair of fittings, electrical connections, water tanks, tubs, sinks, spas, hot tubs, tanks, pools, PVC pipes and leaking gaskets.
- Forming custom gaskets, etc.
- Emergency in-water repairs.

## Features

- Will not sag, run or drip
- Easy to use - no mess
- Adheres to most substrates e.g. glass, ceramics, masonry, metal, timber, fibreglass and some plastics#.
- Can be machined, drilled, sawed, sanded, filed, and painted one hour after mixing.
- Good gap filling properties.
- Heat resistant.
- Can be used under fresh or salt water.

## Technical Details

Property	Typical Result
<b>Technology</b>	Epoxy
<b>Colour</b>	White hardener encapsulated in aqua green resin part. Dries to a white colour.
<b>Density</b>	Uncured: ~1.8g/ml Cured: ~1.9g/ml

<b>Application Temperature</b>	5 to 40°C
<b>Initial Cure Time</b>	60 minutes
<b>Full Cure Time</b>	24 hours
<b>Working Time</b>	20 – 30 minutes
<b>Shore D Hardness (at full cure) (ASTM D2240)</b>	70±2
<b>Heat Resistance</b>	Continuous: -40 to +120°C Intermittent: -40 to +140°C
<b>Volumetric Shrinkage</b>	~3%
<b>Non-Volatile Content</b>	~100%
<b>Lap shear tensile strength (on steel: 25 x 25 x 1.5mm (ASTM D1002))</b>	6.5 – 7 MPa
<b>Compressive strength</b>	~19 MPa
<b>Dielectric Breakdown Strength (ASTM D149)</b>	~7500 kV/m
<b>Chemical Resistance</b>	Resistant to hydrocarbons, esters, ketones, alcohols, halocarbons, aqueous salt solutions, and dilute acids and bases. <i>(For suitability, pre-test a small cured sample with dilute acid &amp; bases).</i>
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.	

## Standards

- Approved for contact with drinkable water at temperatures up to 85°C.
- Complies with AS/NZS4020\*  
\*Maximum Surface Area to Volume ratio is ~1000mm<sup>2</sup>/ L @ 85C.

## Surface Preparation

- Ensure surface is free of grease, dirt and dust. For best results roughen bond area prior to cleaning.

## Directions for Use

- Wear glove. Cut off required amount. Replace disc on remaining portion. Knead with fingers until a uniform colour is achieved. If mixing is difficult, warm to room temperature.

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- For underwater applications, mix adhesive above the waterline prior to immersion.
- Apply to surface to be repaired (within 10 minutes of mixing) and work the adhesive forcefully into the surface applying pressure until adhesion begins to take effect.
- Mould to shape if required. Use the plastic wrapper to press the material in place.
- For a smooth appearance, remove any excess adhesive and hand rub with water or a damp cloth before hardening begins. Knead It Underwater will harden after 20-30 minutes and begin to form a strong bond. Allow for longer cure times at temperatures below 20°C.
- After 60 minutes Knead It Underwater can be drilled, sanded, machined, filed, sawed and painted.

## Safety Tips

- Wear impermeable gloves when mixing or handling uncured product.
- Wash hands thoroughly with soap and water immediately after handling before product hardens.
- Avoid breathing dust and use a dust mask when sanding.
- Turn off power when doing repairs with electrical equipment.

## Clean Up

- Clean up with damp cloth before adhesive hardens

## Storage

- Store in a cool, dry, well-ventilated place and out of direct sunlight.
- Store away from foodstuffs.

## Limitations

- Set time increases at temperatures below 20°C.
- #Does not adhere to polyethylene, polypropylene or Teflon® (polytetrafluoroethylene).
- Not recommended for filling joints and cracks subject to movement as the cured product is extremely hard and not flexible.

## Warnings, First Aid and Shipping Information

This information can be located on the product SDS found through our website – [www.selleys.com](http://www.selleys.com)