



# Technical Datasheet

## HOLDIT ALUMINIUM STICK

### Epoxy Putty

Revised Date: June 2011

#### Description

Aluminium Stick is a hand kneadable, Speciality Epoxy Putty that mixes in one minute to provide fast, permanent repairs to most Aluminium surfaces. When applying Aluminium Stick to surfaces it is necessary to work the material forcefully into the surface and apply pressure until adhesion begins to take effect. The lower the temperature the longer it takes to cure. It comes in a handy rod form with the curing agent encapsulated in the contrasting colour base material. It's putty-like consistency eliminates drips and runs, providing "no mess" application with no tools required to use. The mixed epoxy turns from a silvery colour to "Alloy" upon curing and will not yellow upon exposure to UV light. After final cure, Aluminium Stick may be drilled, sawed, tapped, filed, sanded and painted. It allows patching in areas where welding is impossible.

#### Applications

After proper mixing, Aluminium Stick moulds like clay and may be used to permanently patch dents, scratches, cuts, gouges and holes in items such as Housings and all types of repairs to mouldings and injection type shapes. Aluminium Stick is ideal for making emergency repairs to reforming, rebuilding and patching anything made out of aluminium such as .....HVAC parts, REFRIDGERATION units, Air Conditioning units, machine parts, Alu-Roofing and Siding, Flagpoles, Shelving, Platforms, Walkways, Campers, Road Vehicles, Canopies, Gutters, Truck and Trailer Bodies, Wheels, Manifolds, Stripped Threads, Marine Hardware and Casings.

#### Instructions for Use

In order to achieve optimum adhesion, surface should be cleaned free of grease or dirt. Scuffing or sanding the surface prior to cleaning helps to ensure a good bond.

Mixing: Twist or cut off required amount. To mix, knead with fingers to a uniform colour. If mixing is difficult, warm Aluminium Stick to room temperature or slightly above. Apply to the surface to be repaired (within 2 minutes of mixing). The mixed Epoxy does not exhibit high bond strength at this point, but appears to be merely lying on the surface. Force into any cracks or holes to be filled and strike off excess material, preferably with a tool wetted with clean water. Work the material forcefully into the surface and apply pressure until adhesion begins to take effect.

For a smooth appearance of the cured compound, hand rub with water or a damp cloth prior to hardening. Remove excess material before hardening begins. After 15-20 minutes the Epoxy will harden like metal and start to form a tenacious bond. After just 45 minutes Aluminium Stick is completely cured and can be drilled, sawed, carved, sanded, stained or painted.

#### Storage

Store in cool conditions, preferably away from direct sunlight or excessive heat. Shelf life at least 12 months @ 25°C.

#### Technical Features

Resin	Epoxy Light Silver
Colour	Grey
Epoxy Resistance	Hydrocarbons, ketones, esters, halo-carbons, alcohols, aqueous salt solutions and dilute acids and bases.
Electrical Resistance	30,000 mega Ohms
Dielectric Strength (Steel)	300 Volts/mil
Shelf Life	12 months
Shrinkage:	<1%
Non-Volatile Content	100%

#### Performance of Cured Material

Initial Cure	1 Hour
Full Cure Time	24 Hours
Lap Shear Strength	4.8 N/mm <sup>2</sup>
Shore D Hardness	70/80
Max. Temperature Resistance	120°C continuous 150°C intermittent
Compressive Strength	84 N/mm(2) - 12,000 psi

#### Presentation

Packaged in a 180 gram clear plastic reusable tube with a plastic end cap.

#### Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$   
 $\text{N/mm} \times 5.71 = \text{lb/in}$   
 $\text{MPa} \times 145 = \text{psi}$   
 $\text{N/mm}^2 \times 145 = \text{psi}$   
 $\text{N} \times 0.225 = \text{lb}$   
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$   
 $\text{N}\cdot\text{mm} \times 0.738 = \text{lb}\cdot\text{ft}$   
 $\text{mPa}\cdot\text{s} = \text{cP}$

#### Health & Safety in Use

**IRRITANT:** Contains epoxy resin and may cause skin irritation in sensitive individuals. Unnecessary skin contact should therefore be avoided. If skin contact occurs, wash with a proprietary hand cleaner such as Swarfega, followed by washing with soap and water. In case of eye contact, flush with clean water for at least 15 minutes, then seek medical attention. When fully cured, the product can be considered non-toxic. Always keep Aluminium Stick away from foodstuffs and food utensils.