S1011 – Technical Data Sheet

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Description

The **S1011** Aluminium Epoxy Stick is a hand-kneadable, speciality epoxy putty that mixes in one minute to provide fast, permanent repairs to most aluminium surfaces.

When applying **S1011** 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.

S1011 comes in a handy rod form with the curing agent encapsulated in the contrasting colour base material. It has a putty-like consistency, which 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, **S1011** may be drilled, sawed, tapped, filed, sanded and painted. It allows patching in areas where welding is impossible.

Typical Uses

After proper mixing, **S1011** 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.

S1011 is ideal for making emergency repairs to reforming, rebuilding and patching anything made out of aluminium such as HVAC parts, refrigeration 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.

Typical performance of uncured adhesive

Resin	Epoxide Light Silver 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
Shrinkage	<1%
Non-volatile content	100%
Shelf life	>6 months @ 25°C

Directions for Use

Mixing: Twist or cut off required amount. To mix, knead with fingers to a uniformed colour. If mixing is difficult, warm 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 it is completely cured and can be drilled, sawed, carved, sanded, stained or painted.

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.

Curing

Initial cure	1 hour max
Full cure time	24 hours
Lap shear strength (steel)	4.8 N/mm^2
Shore D Hardness	70/80
Compressive strength	84 N/mm^2 to 12,000 psi

Properties

Opening time	5 minutes
Max temperature resistance	120°C continuous 150°C intermittent

Storage

Store in cool conditions, preferably away from direct sunlight or excessive heat.

Health and 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.

Please consult the S1011 Health & Safety Data Sheet for statutory regulation information.

Information relating to the products of Bondrite Adhesive Limited is based on tests carried out under laboratory conditions. If any of our products are not used in accordance with our instructions or are used under conditions which vary from our laboratory, they may not perform in accordance with any information provided and Bondrite shall not have any liability in this case. Bondrite will accordingly provide samples of our products, on request and free of charge, for Customers to carry out their own tests as to suitability of our product for their purposes and as used in their intended environment.

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