Hi-Temp Lab-metal

Hi-Temp Lab-metal repair and patching compound is ready-to-use, right from the can. Once heat cured, it withstands temperatures as high as 1000ºF.

Easy to use

Hi-Temp Lab-metal is applied directly from the can with a putty knife or similar tool. No two-component mixing or measuring is necessary. Many applications may be made from a single can. After each use, to prevent Hi-Temp Lab-metal from hardening in the can, pour a small amount of Lab-solvent over the remaining Hi-Temp Lab-metal contents, then cover tightly. (Stir the solvent into the Hi-Temp Lab-metal upon opening container).

Durable

Hi-Temp Lab-metal adheres permanently to any clean and dry metal, wood, hard plastic, glass, plaster, or porcelain surface. Its strong bond withstands vibration and other difficult conditions. Once hardened (see "Drying time'), it can be machined, ground, filed, and sanded to a smooth finish. Hi-Temp Lab-metal is impervious to the attack of rust, rot, and mildew. It is not affected by varying climatic conditions, and the hardened metal can be coated with powder or liquid coatings.

Preparation

Hi-Temp Lab-metal must be stirred thoroughly before use. No additive is needed; the repair compound hardens upon exposure to air. The viscous, easily spreadable paste may be thinned. Upon opening the can, if the Hi-Temp Lab-metal appears stiff, stir in a capful or two of Lab-solvent. The application surface must be clean and dry; free of paint, oil and dirt. Roughen the surface for superior adhesion.

Application

Hi-Temp Lab-metal may be applied with a putty knife, spatula, trowel, caulking gun, or rubber squeegee. When filling deep holes or cavities, the putty should be applied in thin layers, less than 1/4" thick. Allow each layer to dry for at least 24 hours at room temperature, and heat harden prior to each additional coat.

To apply Hi-Temp Lab-metal with a paint brush, it must be thinned to paint consistency with Lab-solvent, then applied with light brush strokes -- not worked over as with paint. Dip the brush into Lab-solvent periodically to keep the bristles free and prevent clogging.

Drying time

Depth of application determines drying time; hardening occurs by exposure to air. Apply no thicker than 1/4 inch per application. The application must air dry for at least 24 hours, or until the product has hardened to a metal state. It must then be heat cured (before applying a second coat). To heat cure:

After fully hardened, **Hi-Temp Lab-metal must be heat hardened by exposing it to a temperature of 425ºF for one hour.** (The curing process may be achieved by a more gradual "heat-up", as in the repair of an industrial oven. In this case, as the oven is heating, the Hi-Temp Lab-metal repair is curing.) Heat hardening must be completed prior to powder coating.

Hi-Temp trial set: 4 oz. Lab-solvent and 14 oz. Hi-Temp Lab-metal

Suggested uses

Hi-Temp Lab-metal is recommended where original Lab-metal may not withstand the extreme heat. Originally developed to meet foundries' core box repair needs, industries such as metalworking, powder coating, welding, fabricating, heating, construction, auto repair, die casting, mold refinishing, and sheet metal production and finishing now rely on Hi-Temp Lab-metal.

Hi-Temp Lab-metal repairs:

·foundry core boxes
·duct work
·radiators
·molds
·mufflers, exhaust systems, engines
·wood and coal burning stoves, grills, industrial ovens
·dented metal, prior to powder coating

Shelf life

Hi-Temp Lab-metal is guaranteed for one year in the factory-sealed can. Add Lab-solvent (as instructed) to extend storage time. Once reopened, the contents should be thoroughly stirred. Store in a cool place. Alvin Products recommends testing the product for each application. Please read the Material Safety Data Sheet prior to use.

Lab-metal or Hi-Temp Lab-metal

How to determine which product to use for high temperature applications

- For powder coating processes at temperatures less than 350ºF, **Lab-metal** may be used (even for multiple oven passes).
- For powder coating processes in which the metal parts will never be subject to temperatures higher than 425ºF, for durations no longer than 20 minutes, for no more than one oven pass, **Lab-metal** may be used.
- **Hi-Temp Lab-metal must** be used in powder coating processes running at temperatures above 425ºF.
- **Hi-Temp Lab-metal must** be used if a part is to be exposed to temperatures above 350ºF for more than 20 minutes in duration (or multiple high-heat exposures).
- **Hi-Temp Lab-metal must** be applied in thin layers and allowed to air dry for at least 24 hours, then heat cured as instructed on the label. If Hi-Temp Lab-metal is not completely dry when subject to heat, and if the product is not properly heat hardened, outgassing or bubbling may occur.

ALVIN PRODUCTS

350 Merrimack Street
Lawrence, MA 01843-1748
PHONE (978) 975-4580 ~ FAX (978) 975-2621
www.AlvinProducts.com