

Chemlok® 487 A/B Adhesive

Technical Data Sheet

Chemlok® 487 A/B two-component adhesive is used to bond thermoplastic elastomers (TPEs) to metals, glass, plastics (both thermoplastic and thermoset) and other elastomers during injection molding. Chemlok 487 adhesive works well for bonding Santoprene®, Kraton® and Sarlink® thermoplastic elastomers.

When using Chemlok 487 adhesive to mold TPEs to glass, apply Chemlok 144 primer prior to adhesive application.

Features and Benefits:

Durable – provides a strong, durable bond that, in many instances, has strength equal to or greater than the elastomer being molded.

Fast Drying – allows for spray application; provides a uniform coating over a large surface area, accelerated solvent evaporation and a shortened drying time.

Versatile – bonds a variety of TPEs to a variety of substrates.

Application:

Surface Preparation – Remove grease, oil, fingerprints, dust, mold release agents, rust and other contaminants from the surfaces to be bonded. Wear chemical resistant gloves. Wipe the surfaces with a clean cloth soaked in a solvent such as acetone, methyl ethyl ketone or isopropyl alcohol. On metal surfaces, a suitable alkaline degreasing agent may be used. Rinse metals and allow the surfaces to thoroughly dry.

Mixing – Thoroughly stir Chemlok 487A component. While stirring Chemlok 487A component, add Chemlok 487B component using the following mix ratio:

by Weight 100:13.6, 487A to 487B
by Volume 100:15.0, 487A to 487B

Thoroughly mix the two components before use. Transfer the mixed adhesive to an enclosed vessel where it can be kept free from moisture contamination. Mixed working life is approximately one week at room temperature. Solids content, by volume, of mixed adhesive is 10-11%.

If dilution is needed, use xylene or toluene.

Applying – Apply adhesive by dip, brush or spray methods.

Regardless of application method, the dry film thickness of Chemlok 487 adhesive should be 17.8-25.4 micron (0.7-1.0 mil), which requires that a wet film thickness of 170-244 micron (6.7-9.6 mil) be applied.

Typical Properties*

	487A	487B
Appearance	Clear to Yellow Liquid	Clear to Cloudy Water-thin Liquid
Viscosity, cps @ 25°C (77°F) Brookfield LVT Spindle 2, 30 rpm	100-350	1-10
Density kg/m ³ (lb/gal)	860-910 (7.2-7.6)	780-820 (6.5-6.8)
Solids Content, % by Weight by Volume	12.6-15 11-12	1-2 1-2
Flash Point, °C (°F)	27 (81)	15 (60)
Solvents	Xylene	Methyl Isobutyl Ketone (MIBK)

*Data is typical and not to be used for specification purposes.



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Drying/Curing – Allow Chemlok 487 adhesive to air-dry for one hour at room temperature. Oven heat methods will accelerate drying to less than 10 minutes at 93°C (200°F).

Although optimum adhesion is achieved when molding is done shortly after adhesive application and drying, coated parts can sit for 4 to 5 days before bonding if care is taken to protect the coated parts from contamination. Prior to molding, preheat the adhesive coated parts to 107-121°C (225-250°F) and immediately place parts into the mold.

For insert mold bonding, apply Chemlok 487 adhesive to prepared metal or plastic inserts at a dry film thickness of 17.8-25.4 micron (0.7-1.0 mil). For harsh environments, prime metal inserts with Chemlok 205 primer before applying Chemlok 487 adhesive as a topcoat.

For injection molding TPEs to glass, clean the glass surface with a vinegar-based glass cleaner and apply Chemlok 144 primer. Thoroughly hydrolyze this primer before applying Chemlok 487 adhesive. Allow the adhesive to air-dry for one hour at room temperature or for 3-10 minutes at 93°C (200°F). Preheat primed and adhesive topcoated glass to 121°C (250°F) prior to injection molding. Exercise caution in removing assemblies from the mold and allow molded assemblies to layover for 24 hours before testing.

Cleanup – Use ketone or aromatic type solvents for clean up of uncured adhesive. Thoroughly cured adhesive may require solvent immersion for extended periods of time, followed by mechanical abrasion.

Shelf Life/Storage:

Shelf life of each component is one year from date of manufacture when stored by the recipient at 21-27°C (70-80°F) in original, unopened container.

Chemlok 487 components are moisture sensitive. Minimize exposure to moisture during application and storage.

To help prevent the formation of a gel-like consistency, store Chemlok 487A component above 21°C (70°F). If, however, a gel-like consistency does develop, heat Chemlok 487A component to temperature above 49°C (120°F) and shake material until it returns to a homogeneous liquid.

Cautionary Information:

Before using this or any Parker LORD product, refer to the Safety Data Sheet (SDS) and label for safe use and handling instructions.

For industrial/commercial use only. Must be applied by trained personnel only. Not to be used in household applications. Not for consumer use.

Values stated in this document represent typical values as not all tests are run on each lot of material produced. For formalized product specifications for specific product end uses, contact the Customer Support Center.

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