



## LORD TECHNICAL DATA

# LORD® 7542 Urethane Adhesive

### Description

LORD® 7542 adhesive is an equal-mix, two-component urethane adhesive system used to bond FRP, SMC and other plastics with little surface preparation. This adhesive will also bond primed metals. LORD 7542 adhesive system is available in a range of working times to accommodate a wide variety of process requirements.

### Features and Benefits

**Non-Flammable** – does not require explosion-proof equipment.

**Environmentally Friendly** – does not contain ozone depleting chemicals.

**Environmentally Resistant** – resists sunlight, weathering, humidity and salt spray.

**Chemically Resistant** – solvent resistant when cured. Painting and most cleaning processes do not affect bond strength.

### Application

**Surface Preparation** – Surfaces should be free of grease, dirt and other contaminants. For plastics, clean the surface with a dry rag wipe or a rag dampened with solvent. For metals, prime or grit blast the surface, then solvent wash for optimum bond performance.

**Mixing** – Mix LORD 7542-A resin with the appropriate curative at a 1:1 ratio, by volume. Handheld cartridges will automatically dispense the correct volumetric ratio of each component. Once mixed, the adhesive cures rapidly.

**Applying** – Apply adhesive using handheld cartridges or automatic meter/mix/dispense equipment.

- Handheld Cartridges
  1. Load the cartridge into the applicator gun and remove the end caps.
  2. Level the plungers by expelling a small amount of adhesive to ensure both sides are level.
  3. Attach mixing tip and expel a mixer's length of adhesive.
  4. Apply adhesive to substrate and mate the parts within the working time of the adhesive. Clamp in position until adhesive reaches handling strength.

### Typical Properties\*

	<b>7542-A Resin</b>	<b>7542-B Curative</b>	<b>7542-C Curative</b>	<b>7542-D Curative</b>	<b>7542-E Curative</b>
Appearance	Dark Brown Liquid	Tan Liquid	Tan Liquid	Tan Liquid	Tan Liquid
Viscosity, cP @ 77°F (25°C)	1500-4500	7000-14,000	7000-14,000	5000-14,000	5000-18,000
Density					
lb/gal	11.45-11.75	10.3-10.6	10.3-10.6	10.3-10.6	10.3-10.6
(kg/m <sup>3</sup> )	(1372-1408)	(1234-1270)	(1234-1270)	(1234-1270)	(1234-1270)
Flash Point (Closed Cup), °F (°C)	>200 (>93)	>200 (>93)	>200 (>93)	>200 (>93)	>200 (>93)

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

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- Meter/Mix/Dispense Equipment

Contact your LORD representative if assistance is needed using this equipment.

For optimum adhesion, bondline thickness of LORD 7542 adhesive should be 10-40 mil (254-1016 micron). During use, limit the exposure of LORD 7542 adhesive containers to cold temperatures.

**Curing** – LORD 7542 adhesive will cure to full strength in 24 hours at 75°F (24°C), depending on the curative used.

**Cleanup** – Clean equipment and tools prior to the adhesive cure with organic solvents such as isopropyl alcohol. Once adhesive is cured, heat the adhesive to 300°F (149°C) or above to soften the adhesive. This allows the parts to be separated and the adhesive to be more easily removed. Some success may be achieved with commercial adhesive strippers.

## Shelf Life/Storage/Shipping

Shelf life is six months from date of shipment when stored in a clean, dry environment at 65-85°F (18-30°C) in original, unopened container. Prolonged exposure to temperatures below 50°F (10°C) during shipping or storage may cause variations in cured properties and/or significant reduction in shelf life.

After opening, protect adhesive from excessive exposure to moisture by installing desiccant cartridges and/or using dry nitrogen as an inert cover.

## Cautionary Information

Before using this or any LORD product, refer to the Material Safety Data Sheet (MSDS) 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.

## Typical Properties\* of Resin Mixed with Curative

	7542-A/B	7542-A/C	7542-A/D	7542-A/E
Mix Ratio by Volume, Resin to Curative	1:1	1:1	1:1	1:1
Solids Content by Weight, %	100	100	100	100
Working Time, min @ 75°F (24°C)	4-7	11-15	20-30	50-60
Time to Handling Strength, hr @ 75°F (24°C)	1-2	2	3	4

\*Data is typical and not to be used for specification purposes. Given a 1/2 inch (12.7 mm) bead.

Values stated in this technical data sheet 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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