

Supplied by

AMBERCOMPOSITES

7545

Urethane Adhesive

Description

Lord®7545 is an equal-mix, two-component, paste urethane adhesive system. Lord 7545 adhesive is specifically formulated to be easily applied when dispensed from Lord-Pak™ hand-held cartridges. Lord 7545 adhesive bonds FRP, SMC, and other plastics with little surface preparation where bond strengths greater than the substrate are desired. This adhesive also bonds primed metals and various combinations of dissimilar substrates. Lord 7545 adhesive system is available in a range of working times to accommodate a wide variety of process requirements.

Features

Outstanding Performance - demonstrates high strength and excellent durability for structural applications.

Marine Grade Formula - excellent high resistance to severe environmental and chemical attack. Lord 7545 adhesives withstands exposure to sunlight, weathering, humidity, and salt spray. Painting and most cleaning processes do not affect bond strength and the cured adhesive is solvent resistant.

Nonflammable - exceeds U.S. DOT requirements for non-flammability and does not require explosion-proof equipment or deplete the ozone.

Easy to Dispense - hand held cartridges pump easily with manual applicator guns.

Off-White Color - provides a more suitable appearance when non-painted or visible.

Non-Sag - large adhesive beads may be applied on vertical or overhead surfaces.

Wide Range of Work Times - five formulas are available ranging from 4 minutes to 65 minutes to accommodate many manufacturing processes.

Application Properties of Lord 7545 Adhesive

	Lord 7545A/B	Lord 7545A/C	Lord 7545A/D	Lord 7545A/E	Lord 7545A/F
Working Time @75°F (24°C)	3-5 minutes	6-8 minutes	11-18 minutes	22-38 minutes	45-65 minutes
Purge time @75°F (24°C)	3 minutes	7 minutes	15 minutes	30 minutes	45 minutes
Handling Strength @75°F (24°C)	30 minutes	60 minutes	90 minutes	2 –3 hours	4 –5 hours
Full Strength	24 hours	24 hours	24 hours	24 hours	24 hours

Typical Properties* of Lord 7545 A/B/C/D/E/F Adhesive

	Resin	Curatives				
	Lord 7545A	Lord 7545B	Lord 7545C	Lord 7545D	Lord 7545E	Lord 7545F
Appearance	Brown	Off-White	Off-White	Off-White	Off-White	Off-White
Consistency	Paste	Paste	Paste	Paste	Paste	Paste
Viscosity, cps Brookfield @77°F (25°C)	25,000- 70,000	230,000- 530,000	230,000- 530,000	230,000- 530,000	230,000- 530,000	230,000- 530,000
Density lbs/gal	12.5-12.8	10.8-11.2	10.8-11.2	10.6-11.0	10.6-11.0	10.6-11.0
Percent Solids by weight	99.5	100	100	100	100	100
Flash Point closed cup	>200°F (>93°C)	>200°F (>93°C)	>200°F (>93°C)	>200°F (>93°C)	>200°F (>93°C)	>200°F (>93°C)
Mix Ratio by volume	1.0	1.0	1.0	1.0	1.0	1.0
by weight	1.0	0.87	0.87	0.85	0.85	0.85
Shelf Life	6 months from date of shipment, unopened container @ 70°F-80°F (21°C-27°C).					

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

Surface Preparation

Remove dirt, oil contamination, and loose particles from the bond surface. For most plastics, cleaning the surface with a dry rag wipe or a rag dampened with solvent is sufficient. Prime or grit blast metal surfaces and solvent wash. Follow by e-coat or priming for the best bond performance.

Mixing

Mix Lord 7545 resin with the appropriate curative for the work time required at a 1:1 volumetric ratio. Set the meter/mix/dispense equipment accordingly. Lord-PAK™ cartridges will automatically mix and dispense the proper amount for each application.

Application

Apply Lord 7545 adhesive from Lord-Pak hand held cartridges or meter/mix/dispense equipment. The minimum recommended static mixer contains 24 mixing elements. Apply Lord 7545 adhesive directly to the substrate surface. Mate the assemblies within the working time of the adhesive. Clamp and fixture the assembly until handling strength is achieved. Ideal bondline thickness is 40 mils. However, large gaps may be filled where mating surfaces are irregular.

Lord PAK™ cartridges

- Load the cartridge into the applicator gun and remove the end caps.
- Purge the cartridge by gunning a small amount of adhesive to ensure both sides are level.
- Attach mixing tip and gun out a mixer's length of adhesive.
- Apply adhesive to substrate, clamp and fixture until adhesive reaches handling strength.

Automatic meter/mix/dispense equipment - call your Lord representative if assistance is needed using this equipment.

Curing

Full cure is obtained within 24 hours at room temperature 77°F (25°C). Cure time can be accelerated by applying modest heat (temperatures up to 250°F (121°C)).

Clean Up

Uncured Adhesive

Remove excess adhesive from the bonded assemblies, mixing, and application equipment before the adhesive cures. Isopropyl alcohol and other organic solvent are good cleaning aids.

Cured Adhesive

Heat the cured adhesive to 300°F (149°C) or above to soften. This will allow parts to be separated and adhesive to be more easily removed. Some success may be achieved with commercial adhesive strippers.

Packaging

- Lord-Pak™ Convenient Cartridges
- Bulk Packaging

Storage

Lord 7545 adhesive is moisture sensitive. Cartridges should be left in their mylar bag with desecant until ready for use. For maximum shelf life of bulk containers, cap with dry nitrogen after opening. Shelf Life of Lord 7545 adhesive is six months from date of shipment when stored at 70°F - 80°F (21°C - 27°C) in the original, unopened containers.

Cautionary Information

Before using this or any other Lord product refer to the Material Safety Data Sheet (MSDS) and label for safe use and handling.

Values stated in this bulletin 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 Service Department.

Information provided herein is based upon tests believed to be reliable. Inasmuch as Lord Corporation has no control over the manner in which others may use this information, it does not guarantee the results to be obtained. In addition, Lord Corporation does not guarantee the performance of the product or the results obtained from the use of the product or this information where the product has been repackaged by any third party including but not limited to any product end user. Nor does the company make any express or implied warranty of merchantability, or fitness for a particular purpose concerning the effects or results of such use.

Lord is a registered trademark and Lord-PAK is a trademark of Lord Techmark, Inc., a subsidiary of Lord Corporation.
Printed in USA ©1999, Lord Corporation DS7545AF 9/99

Supplied by

AMBERCOMPOSITES

94 Station Road, Langley Mill
Nottingham, NG16 4BP United Kingdom
T: +44 (0)1773 530899 F: +44 (0)1773 768687
E: sales@ambercomposites.com
www.ambercomposites.com

For additional information, contact Lord Corporation at:
814/868-3611 extension 3277, FAX: 814/864-3452 or
write: **Lord Corporation, Chemical Products, 2000
West Grandview Blvd., P.O. Box 10038, Erie, PA 16514-
0038**

LORD Chemical
Products