

# 661, 662, and 663

*Supplied by*

## White Low Exotherm Acrylic Adhesives for FRP

**AMBER**COMPOSITES

### Description

Lord® 661, 662, and 663 are two-part acrylic adhesives used with Lord Accelerator 6 to bond composites including DCPD resin and modified DCPD resin based FRP (fiber reinforced plastic). Lord 661, 662, and 663 adhesives can also cross-bond composites to many metals.

Lord 661, 662, and 663 adhesives utilize unique patented technology to create exceptionally strong bonds with excellent surface cure and minimum surface preparation. Its non-sag characteristics make it ideal for applications requiring thicker bondlines. Three working times are available to meet various applications.

### Features and Benefits

**Excellent Environmental Resistance** - resists dilute acids, alkalis, solvents, water immersion, moisture, and weathering.

**Non-Sag** - allows for a non-sag application when applied on vertical surfaces.

**Bonding Versatility** - bonds difficult to bond composites such as DCPD based FRP with minimal surface preparation.

**Gap Filling Capabilities** - fills gaps as large as 1.0 inch.

### Surface Preparation

Most composite substrates require little or no surface preparation. Substrates should be free of grease and surface contamination. Some surfaces may require abrading for optimum performance.

**Table 1: Typical Properties\* of Lord 661, 662, and 663 Adhesives**

	Lord 661 (Resin)	Lord 662 (Resin)	Lord 663 (Resin)	Accelerator 6 (Curative)
Appearance	White/off-white/blue tint	White/off-white/blue tint	White/off-white/blue tint	Off-white
Consistency	Paste	Paste	Paste	Paste
Viscosity, cps Brookfield RVT T-D @ 5rpm	125,000 - 350,000	125,000 - 350,000	125,000 - 350,000	100,000 - 400,000
Density lbs/gal	8.5 - 9.5	8.5 - 9.5	8.5 - 9.5	12.7 - 13.3
Solids Content	100%	100%	100%	100%
Flash Point	15°C (59°F)	15°C (59°F)	15°C (59°F)	93.3°C (<200°F)
Mix Ratio by volume	10	10	10	1
by weight	6.9	6.9	6.9	1
Shelf Life	6 months from date of shipment @ 4°C - 27°C (40°F - 80°F), in original unopened container.			

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

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## Application

### Lord PAK™ cartridges

- Load the cartridge into the applicator gun and remove the end caps.
- Level the plungers 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.

### Meter/mix/dispense equipment

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

## Curing

Lord 661, 662, and 663 acrylic resins cure at room temperature when used with Lord Accelerator 6 curative. The cure will begin immediately upon mixing. The adhesive will cure to a tack-free surface.

## Mixing

Mix Lord 661, 662, and 663 resin with Lord Accelerator 6 curative at a mix ratio of 10:1, by volume. Set the

meter/mix/dispense equipment accordingly. Lord-PAK™ cartridges will automatically mix & dispense at the proper ratio.

## Clean Up

Clean equipment and tools prior to adhesive cure with solvents such as isopropyl alcohol, acetone, or MEK.

## Packaging

- Hand held Cartridges
- Bulk Containers

## Storage

For maximum shelf life, store Lord 661, 662, and 663 adhesive and Lord Accelerator 6 curative at 4°C - 27°C (40°F - 80°F) for 6 months in original unopened container. Cooler storages are recommended, 4°C - 10°C (40°F - 50°F). If stored at these cooler temperatures allow the product to return to room temperature before using. Protect from exposure to ultraviolet light. Lord 661, 662, and 663 adhesives are flammable. Do not allow open flames or other ignition sources in the area where the adhesive is being stored, mixed, or applied.

**Table 2: Application Properties of Lord 661, 662, and 663 Adhesives**

	Lord 661/Acc. 6	Lord 662/Acc. 6	Lord 663/Acc. 6
Working Time*	15 minutes ±4 min.	30 minutes ±8 min.	60 minutes ±15 min.
Typical Exotherm Temperature @ 25°C (77°F)	75°C-85°C (167°F-185°F)	65°C-75°C (149°F-167°F)	55°C-65°C (131°F-149°F)
Handling Strength** 100 psi Lap shears in 30mil x 1"x 1"	45 - 55 minutes	70 - 90 minutes	130 - 160 minutes
Full Strength***	24 hours	24 hours	24 hours

\* Given a 1" diameter bead @32°C (90°F).

\*\*Time may change if bondline dimension and temperature varies.

\*\*\* Dependent on temperature and bondline thickness.

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.

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 DS-Lord 661, 662, and 663

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## 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. In the event of potential conflict, the information contained in the MSDS and label prevails over the information provided herein.

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. Visit us at [www.lordadhesives.com](http://www.lordadhesives.com)**

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