

# LORD® 661, 662 and 663 Acrylic Adhesives with LORD Accelerator 6

## Description

LORD® 661, 662 and 663 acrylic adhesives when mixed with LORD Accelerator 6 create adhesive systems that will bond composites including DCPD (dicyclopentadiene) resin and modified DCPD resin based FRP (fiber reinforced plastic). These adhesive systems can also cross-bond composites to many metals.

LORD 661, 662 and 663 acrylic adhesives in combination with LORD Accelerator 6 utilize unique patented technology to create exceptionally strong bonds with excellent surface cure and minimal surface preparation. LORD 661, 662 and 663 acrylic adhesives are available in a range of working times to accommodate a wide variety of process requirements.

For further detailed information on LORD Accelerator 6, refer to the LORD Accelerator 6 data sheet.

## Features and Benefits

**Versatile** – bonds difficult-to-bond composites, such as DCPD based FRP, and a wide range of metals with minimal surface preparation.

**Environmentally Resistant** – resists dilute acids, alkalis, solvents, water immersion, moisture and weathering.

**Gap Filling Capability** – fills gaps as large as 1.0 inch (25.4 mm).

**Non-Sag** – remains in position when applied on vertical or overhead surfaces, allowing for greater process flexibility.

## Application

**Surface Preparation** – Surfaces should be free of grease, dirt and other contaminants. Some surfaces may require abrading for optimum performance.

**Mixing** – Mix LORD 661, 662 or 663 acrylic adhesive with the proper amount of LORD Accelerator 6. Hand-held cartridges will automatically dispense the correct volumetric ratio of each component. Once mixed, the adhesive begins to cure.

**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.

## Typical Properties\*

|   | 661                                 | 662                                 | 663                                 |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| Appearance                                  | White/Off-white/<br>Blue Tint Paste | White/Off-white/<br>Blue Tint Paste | White/Off-white/<br>Blue Tint Paste |
| Viscosity, cP<br>Brookfield RVT T-TD, 5 rpm | 125,000-350,000                     | 125,000-350,000                     | 125,000-350,000                     |
| Density<br>lb/gal<br>(kg/m <sup>3</sup> )   | 8.8-9.8<br>(1055-1174)              | 8.8-9.8<br>(1055-1174)              | 8.8-9.8<br>(1055-1174)              |
| Flash Point, °F (°C)                        | 59 (15)                             | 59 (15)                             | 59 (15)                             |

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

# LORD TECHNICAL DATA

4. Apply adhesive to substrate and mate the parts within the working time of the adhesive. Clamp in position until adhesive reaches handling strength.

- **Meter/Mix/Dispense Equipment**

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

**Curing** – Cure begins immediately once adhesive and accelerator are mixed. Depending on adhesive, handling strength is achieved within 45-160 minutes. Complete cure will take 24 hours at room temperature. Adhesive will cure to a tack-free surface.

## Shelf Life/Storage

Shelf life is six months from date of shipment when stored at temperatures under 80°F (27°C) in original, unopened

container. For maximum shelf life, storage temperatures of 40-50°F (4-10°C) are recommended. If stored at these cooler temperatures, allow product to return to room temperature before using. Protect from exposure to ultra-violet light.

LORD 661, 662 and 663 acrylic adhesives are flammable. Do not store or use near heat, sparks or open flame.

## 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 Adhesive Mixed with Recommended Accelerator

|  | 661   | 662   | 663     |
|--|-------|-------|---------|
| Mix Ratio, Adhesive to Accelerator     |       |       |         |
| by Weight                              | 7.4:1 | 7.4:1 | 7.4:1   |
| by Volume                              | 10:1  | 10:1  | 10:1    |
| Solids Content, %                      | 100   | 100   | 100     |
| Working Time, min @ 90°F (32°C)        | 11-19 | 22-38 | 45-75   |
| 1" diameter bead                       |       |       |         |
| Time to Handling Strength**, min       | 45-55 | 70-90 | 130-160 |
| 100 psi Lap Shears in 30 mil x 1" x 1" |       |       |         |

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

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

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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### LORD Corporation

#### World Headquarters

111 Lord Drive  
Cary, NC 27511-7923  
USA

#### Customer Support Center (in United States & Canada)

+1 877 ASK LORD (275 5673)

[www.lord.com](http://www.lord.com)