

LORD® 201 Acrylic Adhesive with LORD Accelerator 4, 17 or 19

Description

LORD® 201 acrylic adhesive when cured with LORD Accelerator 4, 17 or 19 creates an adhesive system that will bond a wide variety of prepared or unprepared metals and plastics. LORD 201 acrylic adhesive in combination with the recommended accelerator replaces welding, brazing, riveting and other mechanical fastening methods.

LORD 201 acrylic adhesive can be cured with either LORD Accelerator 4, LORD Accelerator 17 or LORD Accelerator 19. LORD Accelerator 4 is a no-mix accelerator applied to the substrate before the acrylic adhesive. LORD Accelerators 17 and 19 must be mixed into the acrylic adhesive prior to application. LORD Accelerator 19 is available in off-white or black. For further detailed information on LORD Accelerator 4, LORD Accelerator 17 and LORD Accelerator 19, refer to the applicable data sheet.

Features and Benefits

Bonds Unprepared Metals – requires little or no substrate preparation.

Versatile – bonds a wide variety of substrates such as metals, ceramics and plastics; insensitive to minor deviations from correct mix ratio.

Self-Leveling – flows into hard-to-reach places and is excellent for bonding irregular shapes.

Temperature Resistant – performs at temperatures from -40 to +300°F (-40 to +149°C).

Environmentally Resistant – resists dilute acids, alkalis, solvents, greases, oils and moisture; provides excellent resistance to UV exposure, salt spray and weathering.

Application

Surface Preparation – Remove grease, loose contamination or poorly adhering oxides from metal surfaces. Normal amounts of mill oils and drawing compounds usually do not present a problem in adhesion. Most plastics require a simple cleaning before bonding. Some may require abrading for optimum performance.

Typical Properties*

Appearance	Off-white Liquid
Viscosity, cP @ 77°F (25°C) Brookfield HAT Spindle 6, 20 rpm	15,000-55,000
Density	
lb/gal	8.5-8.7
(kg/m³)	(1019-1042)
Flash Point (Closed Cup), °F (°C)	65 (18)

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

LORD TECHNICAL DATA

Mixing

- No-Mix Accelerator
LORD 201 acrylic adhesive and LORD Accelerator 4 are not mixed prior to application.
- Mix-In Accelerator
Mix LORD 201 acrylic adhesive with the proper amount of LORD Accelerator 17 or 19. Handheld cartridges will automatically dispense the correct volumetric ratio of each component. Even color distribution visually indicates a thorough mix. Once mixed, the adhesive cures rapidly.

Applying

- No-Mix Accelerator
Apply LORD Accelerator 4 to one or both substrate surfaces. Allow accelerator to dry. For further details on the use of LORD Accelerator 4, refer to the LORD Accelerator 4 data sheet.
Once accelerator is dry, apply adhesive using a handheld cartridge or automatic dispense equipment. Mate the two surfaces and slide into correct position within the working time of the adhesive.

- Mix-In Accelerator

Apply mixed 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.

Meter/Mix/Dispense Equipment

Contact your LORD representative if assistance is needed using this equipment. When using such equipment, all wetted parts must be made of stainless steel and all hoses should be Teflon®-lined high pressure hose.

Curing – Cure begins immediately once adhesive and accelerator are mixed. Handling strength is achieved within 12-16 minutes. Complete cure will take 24 hours at room temperature. Mating surfaces should be fixtured as soon as possible (in less than five minutes) after adhesive application.

Teflon is a registered trademark of E.I. duPont de Nemours and Company.

Typical Properties* of Adhesive Mixed with Recommended Accelerator

Mix Ratio by Volume, Adhesive to Accelerator

A4	No-Mix
A17	10:1
A19 or A19 Black	10:5

Solids Content, %

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Working Time, min @ 75°F (24°C)

5-8

Time to Handling Strength, min @ 75°F (24°C)

12-16

Mixed Appearance

A4	—
A17	Tan Paste
A19	Tan Paste
A19 Black	Gray Paste

Cured Appearance

A4	—
A17	Tan to Green
A19	Tan to Green
A19 Black	Black

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LORD TECHNICAL DATA

Typical Bond Strengths** – LORD 201 Adhesive/LORD Accelerator 17

Substrates	Lap Shear Strength, psi (MPa)	Failure Mode
Cold Rolled Steel		
SAE 1010	4500 (31.0)	A/C
Commercial Quality 1010	3200 (22.1)	A/C
Drawing Quality Aluminum Killed 1008	3600 (24.8)	A/C
Stainless Steel, 302	4000 (27.6)	A/C
Galvanized Steel	1300 (9.0)	A/C
Aluminum		
6061-T6	4600 (31.7)	A/C
2014-T3	2500 (17.2)	A/C
5052-0	2000 (13.8)	A/C
Copper	3500 (24.1)	A/C
Brass SAE 72	2600 (17.9)	A/C
Titanium	3200 (22.1)	A/C
Magnesium	2000 (13.8)	A/C
SMC (Polyester)	800 (5.5)	SB
ABS	670 (4.6)	SB
Plexiglas®	900 (6.2)	SB
Noryl®	800 (5.5)	SB
Polycarbonate	1500 (10.3)	SB

Substrate	Surface Treatment
Metal	MEK Wipe
Plastic	Isopropyl Alcohol Wipe

Bonded Parameters	Overlap	Film Thickness	Cure	Mix Ratio
Metal (ASTM D1002)	1/2"	0.010"	24 hr @ RT	10:1 by Volume
Plastic	1"	0.010"	24 hr @ RT	10:1 by Volume

Failure Mode Definition	Abbreviation
Adhesive Failure	A
Cohesive Failure	C
Stock Break	SB

**Bond strength data was obtained using LORD 201 adhesive/Accelerator 17. Please contact LORD Corporation regarding the use and/or performance of using other accelerator combinations (+1 877 ASK LORD).

Plexiglas is a registered trademark of Arkema, Inc.

Noryl is a registered trademark of General Electric Co.

LORD TECHNICAL DATA

Shelf Life/Storage

Shelf life is six months when stored at temperatures under 80°F (27°C) in original, unopened container.

Storage temperatures of 40-50°F (4-10°C) are recommended. If stored cold, allow product to return to room temperature before using.

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.

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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