LORD® Signlok™ 810 Adhesive

Description

LORD® Signlok™ 810 adhesive is a two-component adhesive system designed for bonding metals, such as aluminum, aluminum composite material (ACM), galvanized steel and CRS, and engineered plastics, such as PC-ABS**. LORD Signlok 810 adhesive delivers fast cure speed and strong bonding with minimal bondline read-through (BLRT).

***When bonding to engineered plastics blends, it may be necessary to verify adhesive performance prior to customer builds. Please contact your LORD representative or LORD Customer Support for further guidance.*

Features and Benefits

Aesthetics – bonds thin and flexible substrates with little to no bondline read-through.

Convenient – requires little or no substrate preparation for bonding metals and plastics.

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

Precise Bondline – allows precise control of the adhesive bondline thickness due to its content of glass beads.

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

UL Rated – UL 746C certified.

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.

Mixing – Mix adhesive with accelerator at a ratio of 2:1, adhesive to accelerator, by volume. Handheld cartridges will automatically dispense the correct volumetric ratio of each component. Even color distribution visually indicates a thorough mix. Once mixed, the adhesive system cures rapidly.

Applying – Apply mixed adhesive to bond surfaces using handheld cartridge or automatic meter/mix/dispense equipment. Contact your LORD representative if assistance is needed using this equipment.

Curing – Complete cure requires 24 hours at room temperature. Mating surfaces must be held in contact during the entire curing process. Cure rate can be accelerated by applying modest heat [<150°F (<66°C)].

Typical Properties*

	Adhesive (Part A)	**Accelerator (Part B)**
Appearance	Black Paste	Off-white Paste
Viscosity, cP @ 77°F (25°C) Brookfield	40,000 - 120,000	200,000 - 400,000
Density		
lb/gal	7.7 - 8.0	13.7 - 14.2
(kg/m^3)	(920 - 960)	(1640 - 1700)
Flash Point, °F (°C)	59 (15)	>200 (>93)

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

Cleanup – Clean equipment and tools prior to the adhesive cure with solvents such as isopropyl alcohol, acetone or methyl ethyl ketone (MEK). Once adhesive is cured, heat the adhesive to 400°F (204°C) or above to soften the adhesive. This allows the parts to be separated and the adhesive to be more easily removed.

Shelf Life/Storage

Shelf life is nine months when stored below 77°F (25°C) in original, unopened container. Storage temperatures of 50-60°F (10-15°C) are recommended. If stored cold, allow product to return to room temperature before using. Protect from exposure to direct sunlight.

After dispensing product from cartridge, remove the mixing tip immediately and install supplied cartridge plugs to avoid cured adhesive from plugging cartridge.

LORD Signlok 810 adhesive is flammable. Do not store or use near heat, sparks or open flame.

Cautionary Information

Before using this or any LORD product, refer to the Safety Data Sheet (SDS) 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 Accelerator

Mix Ratio, Adhesive to Accelerator	
by Weight	1.1:1
by Volume	2:1
Solids Content, %	100
Working Time, min @ 70°F (21°C)	8-12
Time to Handling Strength, min @ 70°F (21°C)	20-25
Mixed Appearance	Grey Paste
Cured Appearance	Grey

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

Typical Cured Properties†

Hardness Shore D	40
Tensile Strength at Break, psi (MPa)	841 (5.8)
Lap Shear Strength, psi (MPa) 0.125" Aluminum 3003 alloy panels 18 gauge #304 Stainless Steel #3 finish panels	1441 (9.94)
Elongation, %	190
Glass Transition Temperature (Tg), °F (°C)	109 (43)

†Data obtained from material cured at room temperature. Data is typical and not to be used for specification purposes.

LORD provides valuable expertise in adhesives and coatings, vibration and motion control, and magnetically responsive technologies. Our people work in collaboration with our customers to help them increase the value of their products. Innovative and responsive in an ever-changing marketplace, we are focused on providing solutions for our customers worldwide.

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