

Supplied by

AMBERCOMPOSITES

406

Medium Set, Acrylic Adhesive

Description

Lord® 406 acrylic adhesive bonds a wide variety of prepared or unprepared metals and engineered plastics. Lord 406 adhesive is specifically formulated to provide the highest impact and peel strengths available in a room temperature curing adhesive. Lord 406 adhesive replaces welding, brazing, riveting and other mechanical fastening methods especially in low temperature environments subject to high impact or high peel loads.

Features and Benefits

Non-Sag - remains non-sag when applied on vertical surfaces.

Exceptional Cold Temperature Strength - performs at temperatures from -40°C to 149°C (-40°F to 300°F).

Bonds Unprepared Metal - requires little or no substrate preparation.

Bonds Plastic - adheres difficult to bond plastics such as polycarbonate and XENOY®.

Excellent Environmental Resistance - resists dilute acids, alkalis, solvents, greases, oils, moisture, and weathering. This adhesive also provides excellent UV exposure resistance.

Bond Thickness Control - Accelerator #19 with glass beads provides precise control of adhesive thickness (due to glass bead content).

Typical Properties* of Lord 406 Acrylic Adhesive

	Lord 406	Accelerator #17	Accelerator #19	Accelerator #19 with glass beads
Appearance	Off-White to Tan Paste	Off-White	Off-White	Off-White Textured
Viscosity, cps				
Brookfield at 25°C (77°F)	100,000-300,000	10,000 - 100,000	150,000 – 450,000	150,000 – 400,000
Density				
kgs/m ³	1090 - 1162	1186 - 1246	1426 - 1545	1480 - 1588
lbs/gal	9.1-9.7	9.6-10.4	11.9-12.9	12.35 - 13.20
Flash Point	15°C (59°F)	>93°C (>200°F)	>93°C (>200°F)	>93°C (>200°F)
Mix Ratio				
by weight	10	1	3	3
by volume	10	1	2.5	2.5
Working Time				
@ 24°C (75°F)	6 - 10 min.	N/A	N/A	N/A
Handleable Bonds				
@ 24°C (75°F)	12 - 17 min.	N/A	N/A	N/A
Shelf Life	6 Months	6 Months	6 Months	6 Months
from date of shipment, @ 24°C (75°F), unopened container.				

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

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 best performance.

Mixing

Hand mix or apply with automatic meter/mix/dispense equipment. Mix Lord 406 resin with the proper amount of Mix-In accelerator. Once mixed, the acrylic adhesive cures rapidly.

Application

Apply to substrates and join.

Curing

The cure is completed in 24 hours at room temperature 25°C (77°F). The cure rate can be accelerated by applying modest heat. The surfaces need to be held in contact during the entire cure period. If heat cured, do not exceed temperatures of 66°C (150°F).

Clean Up

Uncured Adhesive – Clean excess adhesive on the bonded assembly, as well as mixing and application equipment, before the adhesive cures. Use hot water and detergent, or an organic solvent; ketones have been shown to work best.

Cured Adhesive – Heat the cured adhesive to 204°C (400°F) or above to soften the adhesive. This allows the parts to be separated and the adhesive to be more easily removed. Some success may be achieved with commercial epoxy strippers.

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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Packaging

- Pail - 19 Liter (5 Gallon)
- Drum - 208 Liter (55 Gallon)
- Lord-Pak Cartridges

Storage

Store Lord 406 adhesive and Accelerators #17, #19, and #19GB at temperatures under 27°C (80°F) for 6 months. For maximum shelf life storage temperatures of 4°C to 10°C (40°F to 50°F) are recommended. If stored at these cooler temperatures, return the product to room temperature before using. Protect from exposure to ultraviolet light.

Lord 406 adhesive is flammable. Do not allow open flame in the area where the adhesive is being stored, mixed or applied.

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.

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