LORD® 363 EPOXY ADHESIVE

Technical Data Sheet

LORD® 363 adhesive is a fast set, two-component epoxy adhesive system used to bond scuffed sheet molding compounds (SMC), wood, fiberglass reinforced plastics (FRP) and other plastics. This adhesive system can be either room temperature cured or heat cured for faster processing.

Features and Benefits

Fast Set: rapidly cures at room temperature.

Environmentally Recommended: contains no solvent, nonflammable and virtually odorless.

Self-Leveling: flows into hard-to-reach spaces; excellent for bonding parts which have tight tolerances.

Application

Surface Preparation: Remove soil, grease, oil, fingerprints, dust, mold release agents, rust and other contaminants from the surfaces to be bonded by solvent degreasing or alkaline cleaning.

On metal surfaces which are free of oxidation, use an isopropyl alcohol wipe. If necessary, use an abrasive material to remove tarnish. Always follow abrasion by a second cleaning to ensure removal of loose particles.

Handle prepared surfaces carefully to avoid contamination. Assemble as soon as possible.

Mixing: Thoroughly mix the proper amount of resin and hardener until uniform in color and consistency. Be careful not to whip excessive air into the adhesive system. Handheld cartridges will automatically dispense the correct volumetric ratio of each component.

Heat buildup due to an exothermic reaction between the two components will shorten the working time of the adhesive. Mixing smaller quantities will minimize heat buildup. Do not use any adhesive that has begun to cure.

Applying: Apply the mixed adhesive to bond surfaces using automatic meter/mix/dispense equipment or any convenient tool such as a stiff brush, spatula or trowel. Handheld cartridges or a disposable paper cone can be used to apply the adhesive in a continuous bead. Because the adhesive is self-leveling, it may be difficult to control the bondline thickness; consequently, it is not recommended for applications which require gap filling. By adding a small amount of glass beads (10 mil diameter recommended) into the mixed adhesive, adhesive squeeze-out is minimized.

Join the parts in such a way as to avoid entrapped air. Apply only enough pressure to ensure good wetting of the adhesive on both surfaces. Squeezing a little adhesive out at the edges is usually a sign of proper assembly. It is not necessary to clamp the assembly unless movement during adhesive cure is likely. Maximum adhesion will occur only with parts which mate well without the need for excessive clamping pressure during cure. Excessive clamping may squeeze too much adhesive from the bond area which can result in a poor bond.

Typical Properties*

	363-A Resin	363-B Hardener
Appearance	Clear Liquid	Light Amber Liquid
Viscosity, cP @ 77°F (25°C) Brookfield HAT, 10 rpm	7000 - 16,000 Spindle 4	8000 - 20,000 T-C Spindle
Density lb/gal (kg/m^3)	 9.4 - 10.0 (1126 - 1198)	 9.3 - 9.6 (1114 - 1150)
Flash Point (Closed Cup), °F (°C)	>200 (>93)	>200 (>93)

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

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Curing: LORD 363 adhesive will cure to full strength in 4-6 hours, provided that the adhesive, substrates and ambient temperature are 65°F (18°C) or higher.

Higher temperatures will provide faster cure times; however, the bondline temperature should not exceed 325°F (162°C). Elevated temperature cure produces the highest bond strengths and impact resistance. Firm recommendations of cure times and temperatures depend on material composition and heating methods.

Once the adhesive has cured, it can be filed, sanded, machined or otherwise handled in the same way as a light metal. Paint, lacquers, enamels and other coatings can be applied to cured adhesive.

Cleanup: Clean excess adhesive on the bonded assembly, as well as the equipment, prior to the adhesive cure with hot water and detergent or an organic solvent such as ketones. Once adhesive has cured, heat the adhesive to 400°F (204°C) or above to soften the cured 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.

Shelf Life/Storage

Shelf life is two years from date of manufacture when stored at 60-80°F (16-27°C) in original, unopened container.

Cautionary Information

Before using this or any Parker Lord product, refer to the Safety Data Sheet (SDS) and label for safe use and handling instructions.

Verify Volatile Organic Compounds (VOC) requirements with the applicable local, regional and state air quality authorities before importing, selling or using this product. VOC rules, thresholds and reporting obligations vary by jurisdiction; compliance is the responsibility of the importer/seller/owner.

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 Resin Mixed with Hardener

Mix Ratio by Volume, Resin to Hardener	1:1
Solids Content, %	100
Working Time, minutes @ 75°F (24°C) 54g mass	3-5
Time to Handling Strength, minutes	15-30
Mixed Appearance	Light Amber Liquid
Cured Appearance	Tan

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