



ADHESIVES AND SEALANTS

THIXON™ 422 Solvent Based Adhesive

Primary Use:

Thixon 422 is a one-component adhesive for bonding castable urethane to metal substrates. Thixon 422 has very good high temperature resistance.

*Typical Physical Properties as manufactured:

Property		ASTM Method
Color	Amber or red	
Viscosity, Brook-field #3 spindle at 100 RPM	350 cps	D-1084
Non-volatile solids by weight	18%	D-2369 †
Spec. Gravity	0.88	D-1475
Wgt per Gal	7.3 lb	D-1475
Flash Point (Seta)	24°F	
Shelf life at 78°F (unopened)	18 months	
Cure temp range	190 to 220°F	

† Modified to internal Rohm and Haas method

*These properties are typical and are not to be used for specification purposes.

Environmental Resistance:

Properly preparing the bonds will resist oil, exposure to salt fog, and water immersion.

Preparing the Surfaces:

Properly preparing the substrates is the most important factor in obtaining consistent, high quality bonds. Gritblast ferrous metal substrates with #40 or #50 steel grit; gritblast nonferrous substrates with #40 or #50 aluminum oxide grit. Then solvent degrease the metal substrates.

Mixing and Diluting:

Thoroughly mix Thixon 422 with a high speed propeller-type agitator before using.

Diluent - Use PM acetate, or Thixon 917 solvent blend as the diluent.

Applying the Adhesive:

Thixon 422 can be applied by brushing, dipping, or spraying. Apply Thixon 422 heavily enough to yield a dry film thickness of .5 to 1.5 mils.

Conventional Air Spray - For spray applications, use 2 parts Thixon 422 with up to 4 parts PM acetate by volume. This will give a viscosity of 18 to 20 seconds, #2 G.E. Zahn cup. Using other solvents will cause cobwebbing.

<u>Equipment:</u>	<u>Binks</u>	<u>DeVilbiss</u>
Gun Models	62 or 18	JGA 502 or MBC 510
Fluid Nozzles	63A - 0.040" 63B - 0.046" 63C - 0.052"	FX - 0.042" FF - 0.055"
Air Caps	63PB or 66SD	704 or 777

Continued ...

Pressure Tanks - Pressure tanks must be equipped with an agitator and must be ASME rated for industrial use.

Flow Rate - 300 to 400 cc per minute

Atomization Pressure - 40 to 80 psi

To clean your equipment, use PM acetate or Thixon 917 solvent blend.

Theoretical Coverage:

One gallon of Thixon 422 applied at a dry film thickness of .5 mil will cover approximately 448 square feet.

Drying the Film:

Thoroughly dry the film of Thixon 422 before continuing, approximately 30 to 50 minutes at room temperature (60°-80°F).

Dry Film Stability:

Thixon 422 has excellent dry film stability. Parts coated with Thixon 422 can be stored up to 2 weeks before use if protected from contaminants.

Oven Prebaking:

For the best adhesion, prebake coated inserts for ½ to 3 hours at 200 to 220°F in a forced air convection oven equipped with proper ventilation. Thixon 422 can be prebaked for up to 8 hours at 220°F without adversely affecting the bond.

Molding and Curing:

Thixon 422 can be used with all common molding and curing techniques. Use a cure temperature between 190 and 220°F.

To prepare the urethane, preheat the prepolymer and the curing agent to the recommended temperatures. Degas the prepolymer at 5mm Hg vacuum. Combine the curative and the urethane, and mix thoroughly. Then, cast the urethane.

Cure the parts in the oven according to the time and temperature cycle required for the urethane polymer.

Toxicity and Safety Information

Read the Material Safety Data Sheet before using this material. Toxicity and safety information is included on MSDS.

Storage & Handling Information

Read the Material Safety Data Sheet, Section 7, for the safe handling and storage of the product. Store in a cool, dry, well-ventilated area away from heat, ignition sources and direct sunlight. Keep containers tightly closed. Containers should be supported and grounded before opening, dispensing, mixing, pouring and emptying.

For questions regarding the handling of empty containers or dry film with respect to the hazardous waste regulations, we suggest you contact the RCRA Hotline sponsored by US EPA at 1-800-424-9346 or your local/state environmental agencies.

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Visit us at <http://www.rohmhaas.com/adhesivesSealants>

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