



## ADHESIVES AND SEALANTS

### THIXON™ 300-EF/301-EF Solvent Based Adhesive

#### Typical Use:

Thixon 300-EF/301-EF is a two component solvent-based one-coat vulcanizing adhesive for bonding fluorocarbon elastomers to metal. Thixon 300-EF/301-EF is formulated without reportable levels of lead (or other heavy metals), chlorinated solvents and ozone-depleting chemicals.

#### Environmental Resistance

Properly prepared bonds will resist heat, salt, fog, oil, and water immersion.

#### Directions for Use:

##### Preparing the Surfaces:

Properly preparing the surfaces is the most important factor in obtaining consistent, high quality bonds. First remove contaminants by alkaline cleaning or solvent degreasing. Then, gritblast the metal surfaces with #40 or #50 grit, and solvent degrease them.

Metal surfaces can also be pretreated with iron or zinc phosphate, chromate conversion, and acid or alkaline cleaning procedures.

Follow the manufacturer's treatment instructions carefully. **Change the cleaning solutions when they are contaminated.** Keep the cleaning solutions at the concentration and temperature specified. Likewise, keep the metal immersed for the length of time specified.

#### Mixing and Diluting:

**Diluent** - Use methyl ethyl ketone as the diluent.

Thoroughly mix both Thixon 300 and Thixon 301. Combine equal volumes of each into a clean container. Shake them well or stir them with a clean spatula or rod. The two liquids will mix readily within one or two minutes. The mixture will turn violet with no undissolved solids at room temperature. The shelf life of mixture diluted 1:1 with methyl ethyl ketone is four weeks.

#### \*Typical Physical Properties as manufactured:

Property	300-EF	301-EF	Combined	ASTM Method
Color	Clear	Amber	Violet <sup>1</sup>	
Viscosity, Zahn #2	16 seconds	14 seconds	15 seconds	D-1084-88-D
Viscosity, Brookfield, #1 @ 100 rpm	35 cps	15 cps	20 cps	D-1084
Non-volatile solids by weight	46%	25%	36%	D-2369 †
Spec. Gravity	0.97	0.89	0.93	D-1475
Wgt per Gallon	8.1 lbs	7.4 lbs	7.7 lbs	D-1475
Flash Point (Seta)	20°F	20°F	20°F	
Suggested film thickness			0.15 to 0.4 mil	
Cure temp range			370° to 400°F	
Shelf life at 78°F unopened	18 months	18 months	2 weeks	

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

† Modified to internal Rohm and Haas method

- 1 The violet color will appear about 3 hours after mixing Thixon 300-EF and 301-EF.

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### Applying the Adhesive:

Thixon 300-EF/301-EF can be applied by dipping, brushing, or spraying.

Brush - Dilute 1 part of the Thixon 300-EF/301-EF blend with 1 part MEK.

Dip - To obtain a dry film thickness of 0.3 to 0.4 mil, dilute 1 part of the Thixon 300-EF/301-EF blend with 1 to 1-1/2 parts diluent.

Conventional air spray - Dilute 1 part Thixon 300-EF/301-EF blend with 2 parts diluent. This will give the blend a viscosity of 28-30 seconds, #1 G.E. Zahn cup.

Equipment:	Binks	DeVilbiss
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

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

Flow rate: 160 to 200 cc/minute

Atomization pressure: 20 to 40 psi

### Drying the Film:

Thoroughly dry the film of Thixon 300-EF/301-EF before continuing, approximately 30 to 45 minutes at room temperature (60 to 80°F). At lower temperatures, dry longer. To shorten dry time, force dry approximately 3-5 minutes at 180°F. You can force dry at temperatures up to 212°F.

### Theoretical Coverage:

One gallon of Thixon 300-EF/301-EF applied at a dry film thickness of 0.3 mil will cover approximately 1,385 square feet.

### Dry Film Stability:

Thixon 300-EF/301-EF has good dry film stability. Parts coated with Thixon 300-EF/301-EF can be stored for one week before use, if they are protected from airborne contaminants.

**Molding and Curing:** Thixon 300-EF/301-EF can be used with all common molding and curing methods. Use a cure temperature between 370 and 400°F.

**Oven Prebaking:** You can prebake inserts coated with Thixon 300-EF/301-EF for up to 10 minutes at 350°F without affecting the bond quality.

Thixon 300-EF/301-EF film shows some tendency to sweep during transfer and injection molding. If the film does sweep, reduce the film thickness or prebake the coated inserts for 5 to 10 minutes at 350°F before molding.

### Toxicity and Safety Information

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

Various raw materials used in this product formulation may contain non-reportable levels of some heavy metals. Additionally, minimal amounts of lead may be present in this product due to the manufacture of other products at our facility. Therefore, a typical analysis of this product may detect nominal quantities of lead

### 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/adhesives/Sealants>

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