



# THIXON™ 300-EF/301-EF

**Description** 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.

**Benefits & Features** Durable bonding, excellent environmental resistance including heat aging, salt exposure, fog, oil, and water immersion.

Uncured Properties	Nominal Value	Unit
Color <sup>1</sup>	Amber	
Solids Content <sup>2</sup>	36	%
Dry Film Density	1.0 to 1.3	g/cm <sup>3</sup>
VOC Content	5.00	lb/gal
Flash Point <sup>3</sup>	-6.67	°C
Viscosity <sup>4</sup>	0.020	Pa·s
Theoretical Coverage <sup>5</sup>	0.300	m <sup>2</sup> /l
Recommended Film Thickness Range <sup>6</sup>	3.8 to 13	µm
Shelf Life <sup>7</sup>	18	month

**Elastomer**

Fluorocarbon based elastomers

**Substrate**

CRS, Phosphate pretreated CRS, Aluminum and Stainless Steel

**Surface Prep**

Review Dow 's rubber to bonding agent guide or contact your account manager.

**Mix Instructions**

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 two weeks.

**Application Technique**

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" FX - 0.042" 63B - 0.046" FF - 0.055" 63C - 0.052"

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.

**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.

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**Pre-Bake Resistance**

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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.

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**Dry Film Stability**

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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.

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**Clean-up**

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Equipment clean up should be done using recommended dilution solvents.

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**Packaging/Sizes Available**

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Phenolic lined steel cans, pails or drums.

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**Storage & Stability**

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The shelf life of this material is assured for 24 months (from the date of manufacture) at temperatures below 78°F in an unopened container.

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**Toxicity and Safety Information**

Read the Safety Data Sheet before using this material. Toxicity and safety information is included in the SDS.

**Food Contact Applications**

Dow Automotive products are not approved for direct or indirect food contact or drinking water applications. If your applications include food contact or drinking water requirements, please contact your Dow representative. For more information on the regulatory status of this product, please refer to the SDS for this product.

**Notes**

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

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<sup>1</sup> Clear & Amber, Violet when combined

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<sup>2</sup> 1 gram, 2 hrs @ 100°C

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<sup>3</sup> Seta

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<sup>4</sup> 20 cps combined

Viscosity, Brookfield, #1 @ 100 rpm

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<sup>5</sup> 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.

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<sup>6</sup> Magnetic induction probe

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<sup>7</sup> 18 for uncombined components.

Combined component under normal conditions is 14 days.

Product History/Store in a cool (<70°F), dry, well-ventilated area away from heat, ignition source and direct sunlight.

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## Additional Information

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