



# THIXON™ 422

**Description** THIXON™ 422 is a one-component adhesive for bonding castable urethane to metal.

**Benefits & Features** Excellent high temperature and humidity resistance of finished parts.

Uncured Properties	Nominal Value	Unit	Test Method
Color	• •	Amber Red	
Solids Content			
-- <sup>1</sup>	17 to 19	%	ASTM D2369
-- <sup>2</sup>	20	%	
Density	0.863 to 0.887	g/cm <sup>3</sup>	ASTM D1475
Dry Film Density	0.95	g/cm <sup>3</sup>	
VOC Content	6.00	lb/gal	
Flash Point <sup>3</sup>	20.0	°C	
Viscosity <sup>4</sup> (Brookfield RVT)	0.20 to 0.50	Pa·s	ASTM D1084
Viscosity (25°C)	23 to 50	sec	Zahn Cup 3
Theoretical Coverage <sup>5</sup>	13.4	m <sup>2</sup> /l	
Recommended Film Thickness	25	µm	
Recommended Film Thickness Range	12 to 25	µm	
Shelf Life <sup>6</sup> (25°C)	18	month	

**Elastomer**

Castable Polyurethane systems

**Substrate**

CRS, Phosphate or grit blast pre-treated CRS, Aluminum, Stainless Steel, fiberglass, polyester, nylon, rayon fibers, etc.

**Surface Prep**

Substrate cleaning by solvent or alkaline wash then dry/preheat insert (80°C-90°C)

**Mix Instructions**

Diluent - PM acetate, or THIXON™ 917 solvent blend

**Application Technique**

Process A: Apply THIXON™ 422, dry at RT, bake in oven (87°C - 104°C, 30min), molding injection temperature: 215°C; mold temperature: 50°C-60°C. Inject TPU while coated metal is still hot. Process B: Dilute THIXON™ 422. Apply first application of THIXON™ 422, dry, bake (150°C - 180°C, 10 min.), cool down to room temperature, apply second application of THIXON™ 422, dry at RT, bake in oven (87°C - 104°C, 30min), molding (injection temperature: 215°C; molding temperature: 50°C-60°C). Inject TPU while coated metal is still hot.

**Drying the Film**

Thoroughly dry the film approximately 30 to 50 minutes at room temperature.

**Molding and Curing**

THIXON™ 422 can be used with all common molding and curing methods. Use a cure temperature between 190°F - 220°F (87°C - 104°C).

**Pre-Bake Resistance**

For the best adhesion, prebake coated inserts for ½ to 3 hours at 200°F-220°F (93°C-104°C) in a forced air convection oven equipped with proper ventilation. THIXON™ 422 can be prebaked for up to 8 hours at 220°F (104°C) without adversely affecting the bond.

**Dry Film Stability**

THIXON™ 422 has excellent dry film stability. Parts coated with THIXON™ 422 can be stored up to two weeks if protected from airborne contaminants.

**Clean-up**

Equipment clean up should be done using recommended dilution solvents.

**Packaging/Sizes Available**

Drums, pails and gallon cans.

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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.

**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> Non-volatile solids by weight

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<sup>2</sup> By volume

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<sup>3</sup> SetaFlash Closed Cup

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<sup>4</sup> Spindle #3, @ 100 RPM

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<sup>5</sup> Applied at a dry film thickness of 0.5 mil

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<sup>6</sup> Unopened

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