



# THIXON™ 520-PEF Solvent-Based Adhesive

### DESCRIPTION

THIXON 520-PEF is a general purpose cover coat for bonding rubber compounds to metals and other rigid substrates during vulcanization.

THIXON 520-PEF is typically used in conjunction with a MEGUM™ or THIXON primer.

### Product Typical Properties

THIXON 520-PEF	
Appearance	Black, liquid
Dry solid content (Non-volatile solids by weight)	24-28%
Viscosity, Brookfield (LV #2 spindle at 30 rpm)	130-300 mPa.s (cP)
Density (20°C)	1.0 g/cm <sup>3</sup>
Specific gravity (20°C)	0.97-1.03 g/cm <sup>3</sup>
Weight per gallon	8.35 lbs
Volume solids	15.1% (calculated)
VOC content per gallon	6.1 lbs (calculated)
Dry film density	1.72 g/cm <sup>3</sup> (calculated)
Flash point (Seta)	+25°C/77°F
These properties are typical and are not to be used for specifications purposes.	

### Main Features

**Composition :** THIXON 520-PEF consists of reactive polymers and pigments in xylene. It is formulated without reportable levels of lead or other heavy metals.

**Elastomers :** NR, IR, SBR, CR, NBR, etc.

**Materials :** THIXON 520-PEF adheres to hot and cold rolled steel, stainless steel, aluminum, brass as well as thermoplastics such as polyamides and polyesters.

**Molding and Curing :** THIXON 520-PEF can be used with all common molding and curing methods. Cure temperatures between 130°C and 190°C (265°F and 375°F) are recommended.

**Environmental Resistance :** Rubber-to-metal bonding systems using MEGUM or THIXON adhesive primers display resistance to severe environmental exposures such as humidity and corrosion. Properly prepared bonds will also resist heat, salt fog, oil, and water exposures.

### DIRECTIONS FOR USE

#### Preliminary Surface Preparation

Properly preparing the metal surface is essential to obtaining consistent, high quality bonds.

A mechanical or chemical pre-treatment should follow degreasing. Common pre-treatments are grit blasting and phosphating. Further details are provided in our "Substrates Preparation Guide", please contact your usual Rohm and Haas commercial representative should you need a copy of this guide.

#### Mixing and Diluting

**Diluents :** Use aromatic solvents such as toluene and/or xylene.

First, thoroughly mix THIXON 520-PEF with a propeller-type agitator. If diluting, slowly add the diluent to the adhesive while mixing constantly.

Continue to mix THIXON 520-PEF while spraying or dipping to keep the dispersed solids from settling to the bottom. This will assure that a homogeneous mixture of the adhesive is applied.

#### Applying the Adhesive

THIXON 520-PEF can be applied by brushing, dipping, spraying or other application methods. For spray application, the viscosity can be reduced by either dilution and/or heating, e.g. to 40°C/105°F.

#### Application Methods

##### **Brushing**

**Dilution ratio :** Use undiluted.

### **Dipping**

**Dilution ratio** : 1 p.b.w. bonding agent + 0.2-0.3 p.b.w. diluent.

### **Spraying with air**

**Dilution ratio** : 1 p.b.w. bonding agent + 0.4-0.6 p.b.w. diluent.

**Viscosity** : at 25°C/77°F.

12-18 seconds [DIN-4-cup].

12-18 seconds [Ford-4-cup].

18-24 seconds [Zahn #2 cup].

50-75 seconds [Afnor #2.5 cup].

**Spray gun** : Most spray equipment can be used.

**Nozzle** : e.g. 1.0 mm/0.04 in.

**Air pressure** : 2-4 bar/30-60 psi.

### **Drying Time**

The drying time is approximately 30 minutes at 20°C/68°F.

Drying at higher temperatures will reduce drying time accordingly, e.g. 5 minutes force drying at 80°C/176°F. Heated circulating air will further accelerate drying.

Do not dry at temperatures above 120°C/250°F.

### **Suggested Dry Film Thickness**

Apply THIXON 520-PEF at a dry film thickness of 10 to 20 microns (0.4 to 0.8 mil.).

### **Dry Film Stability**

THIXON 520-PEF has excellent dry film stability. Inserts coated with THIXON 520-PEF can be stored for several weeks, if protected from contamination.

### **Theoretical Coverage**

Applied at a dry film thickness of 15 microns (0.6 mil.), THIXON 520-PEF will cover approximately 10.2 m<sup>2</sup>/kg (494 square feet/gallon).

### **Pre-bake Resistance**

Depending on the rubber formulation, inserts coated with THIXON 520-PEF can be pre-baked for up to 5 minutes at 160°C/320°F without adversely affecting bond quality.

### **Cleaning**

Cleaning should be done using recommended dilution solvents. Further details are given in our "General Guide to Use", please contact your usual Rohm and Haas commercial representative should you need a copy of this guide.

### **Storage and Handling**

Keep containers tightly closed. Store them in a cool, dry, well-ventilated area away from heat, direct sunlight and sources of ignition. Containers should be supported and grounded before opening, dispensing, mixing, pouring or emptying.

### **Shelf Life**

THIXON 520-PEF has a shelf life of at least 24 months if stored unopened at temperatures below 25°C/77°F. If the material is kept beyond its recommended shelf life, a quality control evaluation should be performed prior to use. This check should include bond testing as well as evaluation of typical physical properties.

### **Safety Information**

Material Safety Data Sheets (MSDS) are available for all Rohm and Haas products. These sheets contain important information that you may need to protect your employees and customers against any known health and safety hazards associated with our products. We recommend that you obtain copies of our MSDS from your local Rohm and Haas technical representative before using our products in your facilities. We also suggest that you contact your suppliers of other materials recommended for use with our products for appropriate health and safety precautions before using them.

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