

Solvent-Based Products

Thixon® 511-T

Primary Use

Thixon 511-T is a vulcanizing covercoat adhesive used with Thixon P-11 adhesive primers for bonding natural rubber, SBR, EPDM, chloroprene, Hypalon¹, butyl, and nitrile rubbers.

Thixon 511-T can also be used as a splice adhesive for bonding uncured rubber compounds to previously cured rubbers.

Thixon 511-T can be used as an intermediate adhesive with a tie coat adhesive for open steam or autoclave curing tank linings.

¹Hypalon, DuPont Chemical Co.

*Typical Physical Properties as manufactured

Property		ASTM Method
Color	Black	
Viscosity, #3 Zahn	38 seconds	D-1084-88-D
Non-volatile solids by weight	21%	D-2369 †
Spec. Gravity	0.96	D-1475
Wgt per Gal	8 lbs	D-1475
Flash Point (Seta)	80°F	
Cure temp range	212° to 345°F	
Shelf life unopened stored at 78°F	18 months	

† Modified to internal Rohm and Haas method

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

Environmental Resistance

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

Preparing the Metal Surface

Properly preparing the metal surface is the most important factor in obtaining consistent, high quality bonds.

First, remove contaminants by alkaline cleaning or solvent degreasing. Then gritblast metal surfaces with #40 or #50 grit and solvent degrease them. Metal surfaces can also be pretreated using iron phosphate, zinc phosphate, chromate conversion, or acid etching procedures.

Keep the treatment solutions clean. Often, poor bonds can be traced to using contaminated treatment solutions. Follow the manufacturer's treatment instructions carefully. **Change the cleaning solutions when they become 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:

Diluents - Use toluene or xylene as the diluent.

First, mix Thixon 511-T thoroughly with a propeller-type agitator. If diluting, slowly add the diluent to Thixon 511-T while mixing constantly. Continue mixing while spraying or dipping to keep the dispersed solids from settling to the bottom of the tank. The lower the viscosity, the more the solids tend to settle.

Applying the Adhesive

Brush - For brush applications, Thixon 511-T can be used undiluted. To obtain the required film thickness, flow on a heavy wet film without brushing excessively.

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Dip - To obtain a film thickness of 0.5 to 0.7 mil, dilute 3 parts Thixon 511-T with 1 part diluent to obtain a viscosity of 25 seconds, #2 G.E. Zahn cup.

Conventional Air Spray - For spray applications, dilute 2 parts Thixon 511-T with 1 part diluent to obtain a viscosity of 20 seconds, #2 G.E. Zahn cup.

<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

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

Flow Rate - 300 to 350 cc per minute

Atomization Pressure - 40 to 60 psi

To clean your spray equipment, use one of the listed diluents.

Drying the Film

Dry the film of Thixon 511-T before continuing. Dry for 30 minutes at 60°-80°F. At lower temperatures, dry longer. The drying time can be shortened by force drying five minutes at 180°F. Do not dry at temperatures above 250°F.

Theoretical Coverage

One gallon of Thixon 511-T applied at 0.5 mil dry film thickness will cover approximately 453 square feet.

Dry Film Stability

Thixon 511-T exhibits excellent dry film stability. Inserts which have been coated with Thixon 511-T can be stored for several months before use, if protected from airborne contaminants.

Molding and Curing

Thixon 511-T can be used with all common molding and curing methods.

The coated inserts can be prebaked for five minutes at 320°F during mold loading without affecting the bond quality. Thixon 511-T films usually show no tendency to sweep during transfer and injection molding.

Toxicity and Safety Information

Read the Material Safety Data Sheet before using this material. Keep flammable material away from heat, sparks and open flame. When pouring flammable material, ground both containers to avoid static discharge (sparking) which could ignite solvents. Do not allow free fall of more than a few inches which could also generate static charges.

Breathing vapors for a prolonged period of time is harmful. Ventilation systems in compliance with applicable local, state, and federal regulations must be used. Repeated contact may cause skin irritation. This material may be harmful or fatal if swallowed. If swallowed, induce vomiting and call a physician.

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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The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results and assume no liability for damages incurred by following these suggestions. Nothing contained herein is to be construed as a recommendation for use in violation of any patents or of applicable laws or regulations.