

## 7001 Pen♦Prime

**Description: Single Component Urethane Moisture Cure Primer**

7001 PenPrime is a single component aromatic polyurethane resin blend based diphenylmethane 4,4'-diisocyanate that is a moisture cure system. This primer is extremely adhesive, is an excellent primer and provides “cross-linking” with polyurea when properly applied.

PenPrime is designed to provide penetration, increased bond strength, wetting and sealing of substrates and surfaces which will be exposed to chemical and physical environmental conditions. 7001 has superior adhesion, toughness, abrasion resistance and flexibility properties. In addition, this formulation provides a polymer structure that is non-toxic and very water resistant and has exceptional corrosive resistance.

7001 is one of the few primers that will adhere to cured polyurea, EPDM and other plastic materials that are difficult to bond to. Accelerated Primer Set Time: 7001 may be used with an accelerator to speed the set time of the product in cool temperatures or in applications where down time is limited.

### Use

- A PRIMER FOR ALL POLYUREA APPLICATIONS
- CONCRETE FLOOR PRIMER PRIOR TO EPOXY OR URETHANE FLOOR COATINGS
- OVER STEEL – TANKS AND VESSELS
- OVER EPDM ROOFING FOR POLYUREA APPLICATIONS
- STRUCTURAL STEEL PRIMER – POLYUREA, EPOXY
- COOL CONDITIONS FOR EXPANSION JOINTS,
- AIRFIELDS, ETC.

### Advantages

- Works in conjunction with ASTC’s CMW
- Primes most substrates and cross-links with polyurea aromatic or aliphatic top coats
- Set time may be accelerated
- Semi-flexible & impact resistance
- Protects both concrete and steel
- Corrosion resistant

### Dry Coverage:

2 to 3 mils per coat, multiple coats on some applications. Heavy application 5 to 8 mils.

### Potlife:

8 Hours @ 70°F after container is opened. With Accelerator pot life is shortened per the amount of accelerator used. Note: Always test a small amount of product with accelerator before use. Cold temperatures will slow the Penprime unless the accelerator is used.

### Preparation:

*Concrete* must have a minimum 28 day cure prior to application. Remove any curing agent, form release materials, oils, wax, moisture or any material that may affect bonding. \*Perform a Moisture Vapor Test before making the coating application on concrete. Clean by abrasive “brush-off” blast. Provide rough profile minimum 2 mils. Review ASTM D4259 Abrading Concrete and ASTM F1869 Measuring Moisture Vapor Emission. Seal/repair all bug-holes, cracks and spalls, see ASTC data sheets on 830, 4034 and 3004 (joints). Use an ASTC primer over filled cracks and voids. Metal Preparation: Round off sharp edges and rough welds. Burrs and weld splatter should be completely removed. Surfaces must be clean, dry and free of any contaminants.



Provide a clean rough profile via sanding, grinding or sandblasting. Vacuum the topside of all horizontal and sloped surfaces. Fill pitted steel using ASTC epoxy paste fillers for steel, leave flush with steel surface.

*Carbon Steel:* Immersion or Severe Exposures SSPC-SP-5 Near-White sand blast.

Mild Exposures: SSPC-SP10/NACE near-white blast cleaning should have an anchor profile of two mils. Welds, seams, edges, etc. grind/blast smooth and provide 2 mil profile. *Non-Ferrous Metal:* SSPC-SP-7 (Brush-Off Blast Cleaning) Coatings applied to these surfaces may not achieve the same degree of adhesion and toughness.

#### **Curing Time & Temperature:**

7001 may be coated over with other products when the product solvent has flashed and the product is just becoming tack free. The set time without the accelerator is based on the environmental temperature. Application temperatures range from 35°F to 125° F. Allow the product to "flash" it's solvent content before applying top coat materials. If the product is allowed to complete its full cure and becomes hard, the surface must be sanded/abraded to provide a profile to the cured product before applying additional primer. Always apply the top coat over the primer at least 1 to 3 hours after the primer has set.

#### **Properties:**

Set time: 45 minutes to 1.5 hours  
Cure time: 2 hours @ 70° F.  
(\*this is a moisture cure, excessively dry conditions may slow set time.)

Adhesion ASTM D4541 1200 psi

Abrasion ASTM D4060 75 mg loss  
1000 cycles CS-17 wheel/1000 gram load

Shelf Life 1 year

Moisture Resistance; One coat Penprime with two coats of epoxy top coat product, per SSPC- SP-10 method for prepared steel. No delamination, blistering, cracking or softening. Expected life minimum under water - 5 years  
+. Salt Water exposure - less than 1/32 inch rust creepage at scribed line after 1000 hours of exposure.

#### **Moisture Vapor Reduction:**

7001 is compatible with CMW (ASTC's Crystal Matrix Waterproofing) used in concrete applications as part of a system approach when coating concrete.

#### **Color:**

Clear honey colored.

#### **Limitations: Do Not Use On Wet Surfaces.**

Concrete; Best results over 2 to 3 mil profile and vapor barrier as needed. Hot conditions: the product may set faster in hot conditions and slower in cold conditions. Keep out of direct sunlight and store the product kits on wood pallets at room temperature. \*Applicator shall wear protective clothing, goggles and NIOSH cartridge mask. Use positive air supply for confined spaces as required. This product is for use by professional applicators only. Wear Protective Clothing. Read MSDS before using this product. DOT/Flash Point – Non-flammable Liquid Classification. Warranty: See ASTC Polymers, Inc. Warranty data sheet. (8/10) Product data sheets subject to change without notice. © 2010 ASTC Polymers, Inc.