

## 1006 PolyUrea Spray

### Description

1006 PolyUrea Spray is a two component, high wet-out, long open time, aromatic MDI or TDI prepolymer and multifunctional polyurea amine blend. The polymer system is "pure polyurea" and is not modified using urethane or other additives.

### Unique Properties

- SLOW GEL & SET TIME
- HIGHER BOND STRENGTHS TO SUBSTRATE DUE TO SLOWER SET TIME AND "WET-OUT",
- GREATER PENETRATION INTO FABRICS AND REINFORCING MATTING (WET-OUT)
- HIGHER OVERALL TENSILE STRENGTH WHEN NEAT AND EXTREMELY HIGH WHEN USED AS A PENETRATING POLYUREA AMALGAM/FABRIC SYSTEM
- EXCELLENT IN MARINE ENVIRONMENTS
- HIGH HYDROLYTIC STABILITY

The 1006 PolyUrea structure is very durable with 100% solids and a set time of 6 to 8 minutes. This aromatic polyurea is extremely tough with excellent adhesive properties and very good chemical resistance. 1006 is applied via high pressure heated equipment such as the HV-20/35 or larger. It conforms to the requirements of the USDA for incidental food contact. It is formulated to be hard, non-brittle, flexible, fast set with impact and abrasion resistance. Gel Time is 65 seconds allowing approximately two to three minutes for self-leveling or for broadcasting aggregate into the product.

### Advantages

- "SLOWED" SET TIMES - 6 TO 8 MINUTES
- EXCELLENT BOND DEVELOPMENT & BETTER "WET-OUT" CONTACT TIME
- DESIGNED TO CHEMICALLY BOND TO ASTC PRIMERS
- EXCELLENT WITH REINFORCING FABRICS
- PROTECTS CONCRETE AND OTHER SURFACES, WOOD, METAL, ETC.
- CHEMICAL RESISTANT, HIGH IMPACT & ABRASION RESISTANCE, TACK FREE IN 6 - 9 MINUTES
- 100% SOLIDS, NO VOC PROBLEMS, NO ODOR

MARINE ENVIRONMENTS  
 SECONDARY CONTAINMENT WITH NON-SKID  
 CORROSIVE BARRIER, PROTECTIVE COATING PROTECTION -  
 PROCESSING EQUIPMENT  
 CONCRETE TANKS & STEEL TANKS  
 SECONDARY CONTAINMENT WALLS AND FLOORS  
 ALL INDUSTRIAL SERVICE SURFACES  
 ROOFING SYSTEMS  
 GEOTEXTILE CONTAINMENT TREATMENT  
 WATER FEATURES

### General Physical Characteristics

Solids	100%
Shelf Life	6 months
Hardness ASTM D2240	D 60 to70
Mix Ratio	1:1
Tack Free ASTM D2471	6-9 min.
Tensile ASTM D412	2700
Tear Strength, pli ASTM 624-C	400-600 psi
Gel Time	65 sec.@ 75°F
Set Time	6-8 minutes
Elongation ASTM D124	330 to 350%
Processing Temperature	160°F to 170°F
Viscosity @ 75°F cps,	A 800-1200 B 600-900
Permeability	0.095 WVT
V.O.C. Content	0%
Abrasion Resistance Taber, CS-17 Wheel w/1000/500 cycles –	20.0 mg loss
Recoat time	Not limited
Impact Resistance ASTM D3776	20-22 ft. lbs.
Flex Life (Ross) ASTM D 1052	200,000 cy.
Coefficient of Leaner Thermal Expansion ASTM C531 (in/in/°F)	4 x 10 <sup>-5</sup>

### Moisture Vapor Reduction:

1006 should be applied to concrete surfaces as part of a "systems approach". Use with CMW vapor barrier treatment for the concrete and the PenPrime.

**Color:**

Black, Medium Gray, Kaki Tan. Note: Aromatic systems will shift color from exposure to UV. Dark colors resist color change more than light colors.

**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. Clean and wash to remove contaminants and maintain pH 8.0-11.0.

\*Perform a Moisture Vapor Test before making the coating application on concrete. 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). Steel; Near white sand blast per SSPC-SP10/NACE 2. Welds, seams, edges, etc. grind/blast smooth and provide 2 mil profile. Immersion – review SSPC-SP1.

**Prime:**

Prime when needed with ASTC primer Penprime 7001. Prime 1 to 2 hours prior to the 1006 application for best results. Avoid heavy mil thickness of primer, maintain mil profile with primer. Steel; prime immediately after cleaning to avoid flash rusting.

**Application:**

Use only Gusmer or Graco heated high pressure equipment & impingement gun equipment, fluid pressure of 2,000 psi. Minimum heat 160°F.

Surface temperature -20°F to 120°F. Apply at not less than 5°F above dew point.

Apply at specified mil thickness over primer as required for the application.

Spraying 1006 requires special equipment, user must be a professional applicator qualified in the use of high performance polyurea materials and specialty application equipment. *Use OPEN time for aggregate broadcasting, seed aggregate no longer than 2 to 3 minutes after the product has been applied.*

**Limitations:**

Do not use on wet surfaces or expose part A to moisture. Keep out of direct sunlight, store drum kits on wood pallets at room temperature. Always mix the part B before using. Pre-heat drums as needed per environmental temperature. Best results over vapor barrier and/or compatible primer. Protect from cold during storage and shipping.

**Shelf Life:**

1 year, store between 40°F and 100°F.

**Packaging:**

110 gallon kits

**VOC Content:**

0gms/1 or 0.0 lbs/gal

This product is for use by professional applicators only. Wear Protective Clothing and gloves as the product bonds very well to fabrics. Read MSDS before using this product. DOT/Flash Point – Non-flammable Liquid Classification, not regulated. Warranty: See ASTC Polymers, Inc. Warranty data sheet. (2-13) Product data sheets subject to change without notice. © 2010 ASTC Polymers, Inc .