



**Fast Curing Urethane Primer/Adhesive/Vapor Block**  
NB 2110  
Revised: 111209

**MANUFACTURER**  
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### **PRODUCT DESCRIPTION:**

**U-Prime** is a two component, 100% solids, solvent free, low viscosity, “**GREEN**” UV stable polyurethane primer, based on CASTOR BEAN technology. This product cures using chemical cross-linking to produce a primer/sealer or adhesive with excellent characteristics for long-term bonding. **U-Prime** has been specifically formulated to be used as a primer for high and low pressure polyurea/urethane spray systems. **U-Prime** can also be used as a roll down, penetrating primer/sealer for concrete surfaces in order to eliminate both vapor and hydrostatic pressure from coming up through the substrate. In addition, **U-Prime** was designed to be rapid curing mastic for vinyl floor covering materials. **U-Prime** possesses superior adhesion properties, making it an ideal primer on many substrates, including concrete, asphalt, and plywood.

### **PRODUCT FEATURES:**

- 100% Solids, TDI free, Zero V.O.C., Solvent free
- Non-volatile, Low-odor, can be used on interior and exterior substrates.
- The overall cure time of this product is adjustable however for most applications **U-Prime** is rapid curing.

### **COVERAGE:**

Depending on the typical use, **U-Prime** will cover between 100-300 square feet per gallon. However when used as a vapor block for concrete surfaces, **U-Prime** should be applied in two coats, no less than a total of 40 mils. Note! Coverage rates will vary depending on the actual porosity of the concrete substrate! As an adhesive for gluing down vinyl flooring, a two coat application is also required.

### **PACKAGING:**

**U-Prime** is packaged in kits. (quarts, gallons).

### **INSTALLATION RECOMMENDATIONS:**

**Preparation** - Surface must be properly prepared. Minimum application surface temperature is 40°F; preferred is 65°F-75°F. Surfaces must be clean and sound, free of oils and other bond inhibiting contaminants and dry. Sandblasting, shotblasting, or hydroblasting are recommended for concrete substrates to product clean and lightly textured surfaces. If hydroblasting is used allow 24 hours to dry.

**Mixing** - Observe all precautions on MSDS and label when using this product. Mix 1 part A-side to 3 parts B-side ( White-1 part Aside to 4 parts Bside) by volume with low speed Jiffy Mixer and paddle drill for at least two (2) minutes. Take care not to incorporate excessive air into the mixture. Scraping sides and bottom of container mix for additional 1 minute.

**U-Prime as a concrete primer:** When using U-Prime on concrete as a primer for polyurea spray systems, apply the material using either a roller, brush or plural component spray gun. Apply the product at a coverage rate of 150 to 200 square feet per gallon depending on the porosity of the concrete. Allow the specified cure time prior to installing the polyurea coating systems.

**U-Prime as a vapor/hydrostatic pressure block:** When using U-Prime on horizontal or verticle concrete surfaces in order to prevent vapor drive or hydrostatic pressure for coming through the concrete surface, apply the product in a coat application. Roll down the first coat of U-Prime thinned 10% with Xylene and allow to cure for a period of 1-3 hours depending on air temperature. Apply the final coat of U-Prime using notched squeegee and 18 inch commercial, tight nap rollers. The final application of U-Prime should result in a film dry film thickness of no less than 35 mils.

**U-Prime as an adhesive for vinyl flooring:** When using U-Prime as a floor mastic for Vinyl flooring lightly shot blast the entier surface prior to installing the product. U-Prime should be rolled down at a film thickness not to exceed 30 mils. After applying one coat of product, install the vinyl flooring in the same fashion as when applying over standard water based mastic.

**Clean-Up** - For un-cured material, remove using a cloth dampened with Xylene. For cured material, remove mechanically. For spillage, ventilate area and confine spill. Collect with an absorbent material and dispose according to current local, state, and federal regulations.

#### **Physical Properties:**

Composition: Two component, solvent free  
 Solids content: 100%  
 Mix Ratio: 1:3 ratio by volume (unpigmented)  
 Mix Ratio: 1:4 ratio by volume (white)  
 Pot life: 20 minutes @ 68°F  
 Viscosity: 1200 cps @ 68°F

#### **TYPICAL PHYSICAL PROPERTIES :**

TENSILE STRENGTH, PSI	D412	1453
ELONGATION, %	D412	100
HARDNESS, SHORE A	D	55
FLASH POINT	D93	> 200°F
MVT RATE	E96	<2 perms

#### **TYPICAL PROCESSING PROPERTIES:**

VOLUME RATIO (A:B)	V:V	1-A to 3-B
POT LIFE	Minutes	20
TACK FREE TIME	Hours	1-2
TOP COAT APPLIED WITHIN	Hours	24

#### **SAFETY & HANDLING:**

MSDS will be mailed immediately upon receipt of a purchase order or upon request. All personnel should read and understand the safety recommendations. Workers should wear gloves and goggles, when mixing or applying product. Avoid skin and eye contact. Wash contaminated clothing prior to reuse. In case of skin contact, wash thoroughly with soap and water. For eye contact, immediately flush with water for at least 15 minutes and contact a physician. For respiratory problems, remove individual to fresh air. Keep uncured product away from children at all times.

#### **SHELF LIFE & STORAGE:**

Six months to one year in factory delivered, unopened drums. Keep away from extreme heat, freezing, and moisture.

#### **SHIPPING INFORMATION:**

**U-Prime** is shipped corrosive, shipping class 55.

#### **CHEMICAL RESISTANCE:**

<b>Chemical</b>	<b>Rating</b>
Acetic Acid (96%, 50%, 25%)	(-, *, +)
Acetone	-
Bleach	+
Citric Acid -10%	+
Diesel Fuel	+
Gasoline	+
Hydrochloric Acid (31%, 10%)	(* , +)
Lactic Acid - 25%	+
Nitric Acid—10%	+
Sodium Hydroxide (50%)	+
Sulfuric Acid (60%, 50%, 25%)	(-, *, +)
Xylene	*
Phosphoric Acid &0%	+
Formic Acid (85%, 50%, 10%)	(-, *, +)
Boric Acid 4%	+
Chromic Acid 10%	+
Tannic Acid	+
Ammonium Hydroxide 5%	+
Potassium Hydroxide 10%	+
Peroxide 10%	+
Formaldehyde 37%	+
Methylene Chloride	-
Methanol	+
Alcohol	+
Glycerin	+
Sodium Carbonate 20%	+
Sodium Chlorate 10%	+
Sugar Water 30%	+
Distilled Water	+

+ Good                      \* Temporary                      - None (no resistance)

All samples submerged in solution for 6 months and then tested for Shore Hardness and Weight.

#### **WARRANTY:**

The technical data and any other printed information furnished by Elastomer Specialties, Inc. are true and accurate to the best of our knowledge. **U-Prime** conforms to in-house quality control procedures and should be considered free of defects. Due to the wide range of applications of this product, it is impossible to assume responsibility for any errors in regard to application, coverage, workmanship, over-spray, or injuries resulting from the use of this product. Elastomer Specialties, Inc. makes no warranty expressed or implied, of its products and shall not be liable for indirect or consequential damage in any event.