



PolyVers International  
87 Shawnee Avenue  
Kansas City, KS 66105  
(913) 321-9000  
(913) 321-1490 (fax)

# Product Data Sheet

## PV 425

### Polyaspartic Polyurea

**Product Description-** *PolyVers PV 425* is a pre-pigmented or clear pure aspartic polyurea. Formulated for airless spray applications, however it may be roller, brush or squeegee applied, where the performance of a color stable polyurea is required. **PV 425** polyurea provides a 12 to 18 minute working time and a 1.5 - 2 hour tack free. Return to light service can be available in 4 - 5 hours, depending on ambient temperature. This product is excellent as a color fast top coat over PV aromatic polyureas. **PV 425** is a rigid formulation, with elongation of 10 - 15%.

**Uses-** **PV 425** adheres well to most substrates including concrete, steel, and plastic. The high tensile strength of the coating allows this product to better withstand the abuse of industrial equipment, steel-wheeled carts, and forklifts with minimal cracking and peeling. The excellent chemical resistance is well suited for some harsh applications.

#### Ideal for Applications In-

- Exterior Applications
- Flooring
- Polyurea Top Coats
- Pipe Coatings
- Plazas

#### Advantages-

- Rapid Cure
- **No VOC's**
- Odorless
- Tough UV Stable Membrane
- Excellent Compatibility with **PolyVers** Pure Polyureas

#### Physical Properties-

<u>Cured Film Properties</u>	<u>Test Method</u>	<u>Typical Value</u>
Solids Content		100%
Shore D Hardness	ASTM D2240	65-75
Elongation	ASTM D638	15%
Tensile Strength, psi	ASTM D638	7000-7500
Tear Strength, pli, Die C	ASTM D624	625
Taber abrasion, mg. Loss, CS-17	ASTM D4060	66.8
Gloss, 60° spec.	ASTM D523	90+
Impact, direct, reverse	ASTM D2794	>100 in-lbs
Working Time (25°C, RH 54%)		12 – 18 minutes
Tack Free		1 ½ - 2 Hours
Return to Use		4-5 hours

## Chemical Resistance-

### ASTM D3912 - modified 21 day immersion exposure

The information in this chart is intended only as a guide. This information has been compiled from various sources believed to be reliable. To verify compatibility or suitability of this product in specific applications, the product should be tested under the specific service conditions. The ratings are for resistance at 25 °C (77°F) unless otherwise noted. Recommended Conditional means there will be some effect: swelling, discoloration, cracking. Wash down within one hour of spillage to avoid effects.

Recommended Recommended/Conditional Not Recommended	R RC NR		
<b>Test Media:</b>	<b>Result:</b>	<b>Test Media:</b>	<b>Result:</b>
Acetic Acid, 100%	NR	Motor Oil	R
Acetone	RC	MTBE	RC
Ammonium Hydroxide, 20%	R	MTBE (5%)/gasoline	RC
Antifreeze/Water	RC	Muriatic Acid (10% HCL)	R
Brake Fluid (DOT 3)	RC	NaCl (10%)/water	R
Clorox 10%/water	RC	Phosphoric Acid (10%)	R
Diesel Fuel	R	Potassium Hydroxide (10%)	R
Gasoline	R	Skydrol	RC
Hydrochloric Acid (10%)	RC	Sodium Hydroxide (50%)	R
Hydrofluoric Acid (10%)	RC	Sodium Bicarbonate	R
Hydraulic Fluid	RC	Sugar/Water	R
Isopropyl Alcohol	R	Sulfuric Acid (10%)	R
Lactic Acid	R	Sulfuric Acid (50%)	RC
MEK	RC	Toluene	R
Methanol	RC	Vinegar (5%)/water	R
		Water (180° F)	R

**Limitations-** Requires dry substrate. Consult **PolyVers**.

## Coverage Rates-

Theoretical Square Feet Per Gallon

Mils	10	15	50	60	80	100	125
	160	107	32	27	20	16	13

Note: 1604 mil inches per gallon. Totally dependent on substrate texture and condition.

## Packaging-

- 3 Gallon Kit: One gallon of 'A' side and 2 gallons of 'B' side.
- Larger Kits Available, Consult **PolyVers**
- **PV 425** is available in standard colors and is packaged in 3 gal kits or 55 gallon drums.- Containers filled by weight, volume is closely approximate.

**Mixing-** Pour entire contents of "A-Side" into "B-Side" and mix by hand for one minute or until consistent color is attained. Do not use drill motor mixing. Always stir both sides independently prior to batch mixing.

**Shelf Life-** One year, in original, unopened factory containers, under normal storage conditions of 13°C (55°F) to 35°C (95°F). Protect from freezing.

**Clean Up-** Cured product may be disposed of without restriction. Excess liquid 'A' and 'B' material should be mixed together and allowed to cure, then disposed of in the normal manner. Product containers that are "drip free" may be disposed of according to local, state and federal laws.

**Safety-** Read Material Safety Data Sheets provided with all shipments. Additional copies are available upon request from **PolyVers** or your local dealer.

Basic safety for personal protection is:

- Long-sleeve overalls or disposable Tyvex overalls.
- Rubber gloves.
- Splash shield or safety glasses with splash guards.
- Rubber or leather boots.
- Do not use near high heat or open flame.
- Do not take internally.
- Keep out of the reach of children.

### **Preparation-**

- This product requires a dry substrate.
- Priming is not required when overcoating **PV 320** and **PV 350**. Over coat within 4 hours.
- Concrete substrates should be clean, sound, and dry. Prime concrete less than 30 days old with **PW-1** applied at 300-400 square feet per gallon.
- Metal substrates should have a 3-5 mil blast profile and should be primed with **PW-1** applied at 500 square feet per gallon.

**Installation-** All surfaces should be free of loose particles, rust, voids and spalls. It is recommended that this product be applied in a multi-directional (north-south, east- west) motion to ensure proper coating thickness. Chloride levels should be checked prior to application. **PV 425** should be roller or squeegee applied up to 20 mils thickness per coat. There is no thickness limitation for **PV 425**; however, **PV 425** should be applied in 5–10 mil coats for maximum leveling and air release.

- It is recommended to wipe steel surfaces with acetone or M.E.K. prior to application of **PV 425**. This will remove moisture that may have accumulated on the surface after sandblasting.
- An 80% to 100% solids (non-glossy) epoxy, solvent-based isocyanate or water dispersible isocyanate (for concrete only) are acceptable primers for **PV 425**.

**Note:** Some epoxy primers require the use of MEK as a wipe-down solvent (due to the build-up of active hydrogen or amine blush on the surface) prior to the application of **PV 425**.

### **TOP-COATING:**

**PV 425** may be top-coated after it has become tack free. Paint, epoxy, urethane, or polyurea may be used.

### **REPAIRS & MAINTENANCE:**

Simply brushing on **PV 425** can make small repairs to cuts in the coating. This material can be brushed on the surface after light scuffing.

## **Technical Services-Sales and Customer Support (913) 321-9000**

**Warranty-** **PolyVers International** will refund the price of or replace, at its election, product it finds to be defective provided the product has been used properly. Except as expressly stated above, the Company makes no warranty of merchantability and no warranty of fitness for any particular purpose, nor does it make any warranty, expressed or implied, of any nature whatsoever with respect to the product or its use. In no event shall the company be liable for delay caused by defects, for loss of use, for indirect, special or consequential damages, or for any charges or expenses of any nature incurred without its written consent.