



PolyVers International
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Product Data Sheet

PV 705 **Spray Polyurea**

Product Description- *PolyVers PV 705* is a fast set, rapid curing, 100% solids, flexible, two-component polyurea hybrid elastomer spray coating material. **PV 705** is used by itself or in combination with other materials to produce liners on metal and other substrates. **PV 705** produces an extremely tough film at all thicknesses. Single or multiple pass applications produce films from 10 mils to 1000 mils without appreciable sag or runs. **PV 705** may be applied in all positions and to any suitably prepared substrate.

Uses- *PolyVers PV 705* is a quality performance system for bed liners and other general applications. **PV 705** is flexible, accommodating movement of the substrate, yet strong enough to remain intact under all conditions except major structural dislocations. With or without reinforcements **PV 705** may be used in transitional areas with confidence. **PV 705** may be used in interior or exterior applications. **PV 705** is recommended for repair of other films, may be applied to metal and other substrates.

Ideal for Applications In-

- Truck Bed Liners
- Manufacturing Facilities
- Bed Liners
- Marine Environments
- Pond Liners
- Water and Waste Water Treatment
- Cold Storage Facilities
- Food Processing Facilities
- Pulp and Paper Mills
- Bottling and Canning Facilities
- Secondary Containment Areas
- Refineries
- Fertilizer and other Process Plants
- Mining Operations
- Structural Steel Applications

Advantages-

- **100% Solids, No VOC's**
- Flexible, 250% Elongation
- Excellent Thermal Stability
- Good Resistance to a Wide Range of Chemical Attack
- Coat Most Metals without Primer
- Low Permeance Rate
- Seamless Elastomer
- Remains Flexible in Cold Temperatures
- Return Project to Service in 60 Minutes
- Odorless, No Toxic Vapors
- USDA Approved

Physical Properties-

Cured Film Properties	Test Method	Typical Value
Solids Content		100%
Shore D Hardness	ASTM D2240	50
Elongation	ASTM D638	225%
Tensile Strength, psi	ASTM D638	1800
100% Modulus, psi	ASTM D638	1400
Tear Strength, pli, Die C	ASTM D624	370
Taber abrasion, mg wt loss (1000 gms, 1000 revs, H-18 wheels)	ASTM D4060	225
Moisture Vapor Transmission, perms	ASTM E96	0.015
Gel Time		2 Seconds
Tack Free		15 Seconds
Open to Use		60 Minutes

Limitations- PV 705 should not be used for direct contact with extremely high or low pH attack. Composite systems are available. Consult **VersaFlex**.

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-

- One Hundred Ten Gallon Kit: 55 gallons of 'A' side and 55 gallons of 'B' side.- Drum containers filled by weight, volume is closely approximate.

Mixing- PV 705 must be spray applied using approved equipment. Use 1:1 ratio pump, with appropriate material heaters, as required for individual application. For information contact **PolyVers**.

Colors- Standard color is charcoal gray, light gray, or black. Other colors available upon request. Consult **PolyVers**.

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.
- Do not take internally. Rubber or leather boots.
- Do not use near high heat or open flame.
- Keep out of the reach of children.

Chemical Resistance-

		Test Procedure: ASTM D1308 25°C Exceeds 1 Year	
*Recommended	R	Test Media	
* Recommended Conditionally (washdown within 1 hour of spillage)	C	Acetone	C
*Not Recommended	N	Antifreeze	R
*Suitable for immersion and/or splash and spillage conditions	1	Benzene	R
*Suitable for occasional or intermittent contact for up to 72 hours	2	Benzoic Acid	R
		Butyl Alcohol	R
		Butyl Cellosolve	R
		Carbon Dioxide	R
		Calcium Hypochlorite	N
		Chlorine (5000 ppm in water)	2
Test Procedure: ASTM D3912 25°C Exceeds 1 Year		Citric Acid	R
Test Media		Cylohexanol	R
Acetic Acid 10%	C	Dichloacetic Acid	C
Ammonium Hydroxide 10%/20	R	Dimethyl Formamide	N
Diesel Fuel	R	Ethanol	2
Gasoline	R	Ethylene Glycol	1
Hydraulic Fluid	R	Gasoline	R
Hydrochloric Acid 5%/10%	R	Hexane	R
Methanol	R	Hydraulic Oil	R
Motor Oil	R	Lactic Acid 10%	1
MTBE	R	Methylene Chloride	C
MTBE/Gasoline 5%	R	Methyl Ethyl Ketone	C
NaCl/Water 10%	R	Methanol	R
Phosphoric Acid 10%	R	Mineral Spirits	R
Potassium Hydroxide 10%/20%	R	Monobutyl Ether	R
Sodium Hydroxide 10%/20%/50%	R	Nitric Acid 20%	C
Sugar/Water 10%	R	Phenol	2
Sulfuric Acid 5%/10%	R	Skydrol	2
Skydrol	2	Sodium Bicarbonate	R
Toluene	C	Sodium Chloride	R
Water	R	Sodium Hydroxide 50%	R
2-Methylbutane	R	Sodium Hypochlorite 10%	2
		Stearic Acid	R
		Sulfuric Acid 70%	N
		Trichloroethylene	C
Test Procedure: ASTM B117, after 1000 hours			
<u>Test</u>	<u>Result</u>	Trisodium Phosphate	R
		Toluene	C
		Vinegar	R
		Xylene	C
Blistering, Bare Steel	None		
Corrosion from Scribe,mm	4.0		
Adhesion, psi, Elcometer	>2000		
Note: Applied at 2-mil blast profile, KTA-Tator panels. No primer.			

Preparation and Installation- Regard **PolyVers** specifications for **PV 705** Spray Polyurea, for detailed preparation and installation procedures. Substrate priming is not required on all metals, consult **PolyVers** for recommendations.

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.