

# CPS 517

## Protective Coating System

### Description

CPS 517 is a Gen II polyurea hybrid spray on elastomer formulation which has low sensitivity to high humidity and moisture in the air or substrate. CPS 517 provides a flexible but extremely tough monolithic membrane.

### Proposed Uses

CPS 517 is a fast cure, textured surface, purpose-built material designed for automotive applications such as pickup truck bed liners, trailers, military applications, and service/fleet vehicles. It exhibits excellent adhesion to most materials and is suitable as a protective-abrasive-impact liner for cementitious, wood, and/or metal surfaces. This Gen II renewable chemistry has excellent chemical and moisture resistance.

### Product Application Parameters

Property	Test Method	"A"	"B"
Specific Gravity	ASTM D-1638	1.15	1.08
Viscosity	Brookfield LVF	600 cps +100	1,000 cps +100
Mixing Ratio	By Volume	1	1
Mixing Ratio	By Weight	53	47
Pounds per Gallon	From Spec. Gravity	9.6	8.5
Temp. at Spray Gun	N/A	145° F	145° F
Gel Time	String	3-4 seconds	3-4 seconds
Dry to Touch	N/A	8-10 seconds	8-10 seconds
Total Cure	N/A	24 hours	24 hours
Cured Film Service Temp.	N/A	-40° F to 200° F	-40° F to 200° F
Relative Humidity	N/A	Max 85%	Max 85%

### Typical Physical Properties

	Test Method	Result
Volatile Organic Compounds (VOC) Content	N/A	0
Shore A Hardness	ASTM D-2240	85-90
Density (pcf)	ASTM D-1622	70
Tensile Strength	ASTM D-2370	2,600 psi minimum
Taber Abrasion Resistance	ASTM D-4060	0.3% per 1,000 cycles or less
Elongation %	ASTM D-2370	150 % minimum
Tear Strength	ASTM D-1004	400 pli minimum
Moisture Vapor Transmission, Perms	E96	0.025 @30 MILS

### Typical Processing Characteristics

Property	Result
<b>Component Temperature at Spray Head:</b> A Component B Component	145° F to 160° F 145° F to 160° F
Minimum System Pressure	2,200 psi
Gel Time	3-4 sec
Cure Time	24 hours
Recommended Application Temp. Range	50° F to 90° F

### Application Requirements

#### Spray Equipment

Spray equipment must be designed to produce a minimum of 2,500-psi with an output of 1.5 gallons per minute. The heating component of the equipment must be able to maintain a temperature at the gun of 150° F. The hose on the equipment must be heated and be rated a minimum of 3,000-psi burst pressure. The spray gun must also be rated at the pressures and throughputs required.

#### Substrate Parameters

The substrate must be dry! A minimum ambient temperature of 5° F above the dew point is mandatory. The ambient relative humidity should not be above 85%. Pin-holing may occur if the above parameters are not strictly followed; it is up to the applicator to check initial climatic conditions. It is recommended that a small area be sprayed and checked for proper application. Applicator may continue, if upon close inspection, the sprayed sample meets quality standards.

#### Coverage

The material theoretically will cover 1,600 square feet/100-gal drum set at 100 mil dry film thickness. Coverage of the substrate should include a waste factor based on conditions at the site and type of substrate to which the material is being applied.



## Chemical Resistance 7-Day Spot-Testing

	Rating
HCl, 10%	C
HCl, 27% @ 120° F	NR
H2SO4, 20%	A
H2SO4, 60%	NR
H3PO4, 10%	B
NaOCl, 5%	A+
NaOCl, 12%	B
NaOH, 50%	A
Castor Oil	A+
NH4OH, 10%	C
Diesel Fuel	B
Gasoline	NR
H2O @ 70° C	C
H2O Room Temp.	A+
Motor Oil	A+
Ethylene Glycol	B
Mineral Spirits	A+
Paint Thinner	NR
Sea Salt, 25%	A+
Isopropyl Alcohol	NR
Xylene	NR
De-Natured Alcohol	NR
Kerosene	B

  

A+	Suitable for continuous immersion
A	Suitable for continuous immersion or exposure for up to 3 months
B	Suitable for temporary immersion or exposure
C	Suitable for temporary exposure or incidental contact
NR	Not Recommended
NT	Not Tested

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