

SHIELD PRODUCTS WEST  
**Technical Data Sheet**  
**Superior Shield - SKU20059-VCF**  
**“Zero’ VOC**  
**Fluoropolymer Coating**

**Fluoropolymer coatings are blends of high performance resins and Fluoropolymer lubricants. These single coat thin films provide excellent corrosion and chemical resistance. Other benefits of Fluoropolymer coatings include reduced friction, resistance to galling, non stick, non wetting, electrical resistance and abrasion resistance. Fluoropolymer coatings are also applied to fasteners and various OEM components to provide a longer life before replacement.**

<b>Fluoropolymer Coating Statistics</b>	
Elongation (ASTM D1457)	35-50%
Impact Strength (ASTM D256)	13 ft - LBI in
Hardness (ASTM D2240)	60 - 90 HB (Shore D)
Abrasion Resistance (Tabor)	> 15 mg
Coefficient of Friction (ASTM D1894)	.15 -.35 static.
Dielectric Strength (ASTM D149)	1400 volts per mil
Use Temperature	- 100-F to 500°F max
Melting Point	n/a
Thermal Conductivity	n/a
Chemical Resistance (ASTM D543)	good
Salt Spray Resistance (ASTM B117)	excellent
Water Absorption (ASTM D570)	<.03%
Thickness	.0008" -.002"

**Shield Products West**  
 Anaheim, CA 92806  
 1-866-676-2400 Fax 866-528-7854  
 e-mail [tcordova@ShieldProductsWest.com](mailto:tcordova@ShieldProductsWest.com)  
 Website: [www.ShieldProductsWest.com](http://www.ShieldProductsWest.com)

# Superior Shield

**Use Temperatures:** 40°F - 500°F

**Corrosion Resistance:**

Salt Spray (ASTM B 117) ...up to 4,000 hrs

**Pencil Hardness:** 5H - 6H (ASTM D3363- 92A)

**Kinetic Friction Coefficient:** 0.06-0.08

**Thickness:** nominal 0.001 " (1 mil)

**Impact:** 160 in lb (ASTM D2794-93)

**Adhesion:**

5B (ASTM D3359-

95) **Dielectric**

**Strength:** 1400

volts per mil

**Elongation:**

35%-50%

**Tensile**

**Strength:**

4,000 psi

**Operating**

**Pressure:** Up to

100,000 psi

**Flame spread**

**Test:**

**O-Flame spread**

## Chemical Resistance- TEST

D1308	Muriatic Acid 3 1 % HCL	24 Hours	No Effect
D1308	Sulfuric Acid 93% H2SO4	24 hour	No Effect
D1308	Caustic Soda 100% NaOH	24Hour	No Effect
D1308	Methel Ethyl Ketone-MEK – Salt	224Hour	No Effect

## Film Properties of Super Shield 20059VCF Crosslinked

## Varnish properties

N.V.(wt%)	60	40	50	60	66
Specific Gravity	1.12	1.06	1.08	1.05	1.16

Solvent	Xylene	Cyclohexanone	Acetone	Solvesso	PCBTF
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<u>Film properties</u>	<u>Test Method</u>	
Gloss (20° / 60°)	ISO2813	70/90
Pencil Hardness	ASTMD3 363	7H-8H
Adhesion (Cross-cut Tape Test)	ASTMD3359	Excellent
Soil Resistance (Marking Pen)		No trace
Solvent Resistance (Xylene Rubbing)		More than 200 times
Impact resistance (Diameter 12.7mm)	ASIM D2794	Intrusion 0.5kg > 0.5m Extrusion 0.5kg > 0.5m
Flexibility (T bending)	ASTMD4145	3T (paint fracture) >
Flexibility (Cupping Test)	ISO 1520	7mm (Cracking)
Water Resistance (Water Immersion Method)	IS02812	No change
Adhesion (Wet/Dry)	ASTMD3359	5B/5B-4B
Blistering	ASIMD714	No blistering
1 0% HCl	ISO4628	No change
10% H2SO4		No change
Chemical Resistance	5% CH2 COOH	Room temperature for 10 days
1 0% NaOH		No change
1 0% NH3		No change
Benzene		No change
MEK		No change
Solvent	Acetone	No change
Resistance	Acetate	for 10 days
		No change