



PolyVers International
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Material Processing & Handling Information

Material: PV 380 - Elastomeric Polyurea

Material Type: Abrasion Resistant Fast Set Spray Polyurea Coating

Application: Concrete, Tile, CMU, Wood and other porous substrates

Application Process: High pressure heated equipment with impingement gun

Process Equipment:	Pumps	Dispensing Gun
Graco:	EXP-1 (Electric) EXP-2 (Electric) EXP-3 (Pneumatic) H-XP2 (Hydraulic) H-XP3 (Hydraulic)	Fusion AP (Air Purge) Fusion MP (Mechanical Purge) GX-7 Standard (Mechanical Purge) GX-8 (Mechanical Purge) Probler (Air Purge) Probler P2 (Air Purge)
Gusmer:	FF 2500 (Hydraulic) FF 3500 (Hydraulic) H-20/35 (Pro Hydraulic)	GX-7 Standard (Mechanical Purge) GX-7 400 (Mechanical Purge) GX-7 DI (Mechanical Purge) GX-8 (Mechanical Purge) GAP Pro (Air Purge)
GlasCraft:	MX, MXII (Pneumatic) MH, MHII, MHIII (Hydraulic) SuperMaxi, Guardian A Series	Probler (Air Purge) Probler P2 (Air Purge)
Gama:		Master Gun (Air Purge)
Process Temperature:	150° F (optimum) to 160 ° F (max)	
Process Pressure:	2,000 - 2,500 psi optimum (1,700 psi min, 3,500 psi max.)	
Gel Time:	30 seconds	
Tack Free:	45 seconds	
Light Traffic:	60 - 120 minutes	
Full Cure:	7 days	
Moisture Content:	Calcium chloride test: 3 lb./24 hr./1,000 ft ² Tramex concrete moisture meter: 5% maximum	
Application Temperature:	-20°F and higher PV 380 will cure at sub-freezing temperatures, but the effects from these conditions may impact the application in a variety of ways. It is recommended that material and equipment ambient temperatures be kept at 50°F or above. Frozen concrete substrates with high moisture content will affect coating adhesion and long-term performance.	
Dew Point:	Substrate temperature must be 5°F above dew point and rising before application of coating materials.	
Surface Prep:	Abrasive blast per ICRI Technical Guideline No. 03732 or SSPC SP13. Achieve a concrete surface profile of ICRI CSP-3 to CSP-5.	

Surface contaminants: Check for soluble salts on surfaces to be coated. Test with Chlor*Test. If amount of soluble salts exceeds recommended limits, treat with Chlor*Rid. Repeat process until acceptable limits are reached.
Maximum amounts of soluble salts (micrograms per square centimeter):
Chlorides - 3 immersion, 7 non-immersion
Nitrates - 5 immersion, 10 non-immersion
Sulfates - 10 immersion, 20 non-immersion

Substrate Parging: Formed walls with honeycombing or concrete surfaces with large exposed aggregate. Recommended that the surface is rubbed or parged to eliminate surface defects. Use Five Star Structural Concrete.

Surface Primer: Concrete & other porous substrates: **PolyVers** Quick Mender (8 to 10 wet mils): Two-component sealer and primer. Maximum overcoat time: 24 hours, after which a light recoat is required (2 to 4 wet mils). Do not use Quick Mender on steel.

All substrates: **PolyVers** PV 20 (8 to 10 wet mils): Two-component primer. Maximum overcoat time: 72 hours, after which a light recoat is required.

Steel only: **PolyVers** PW-1 (4 to 6 wet mils): Single component primer. Maximum overcoat time: 24 hours, after which a light recoat is required. (1 to 2 wet mils).

Adhesion Testing: Adhesion to concrete: Minimum 150 psi. Cohesive failure of concrete is optimum. Pull values will vary depending on concrete strength.

Coating Application: Coating thickness will vary depending on intended use, surface roughness and profile. The International Concrete Repair Institute (ICRI) has developed a standard for Concrete Surface Profile (CSP) ranging between 1 (smoothest) and 9 (Roughest).

The following chart gives approximate minimum coating thickness to achieve a continuous coating using the ICRI CSP standard.

CSP-1 & CSP-2	45 – 55 mils
CSP-3	55 - 60 mils
CSP-4	60 – 65 mils
CSP-5	65 – 70 mils
CSP-6	70 – 75 mils
CSP-7	75 – 80 mils
CSP-8	80 - 85 mils
CSP-9	85 – 90 mils

**** Please consult the PolyVers Spray Gun Configuration Recommendation PDF for specific modules and tips.**

	Storage Temp	Storage	Special Handling
'A' Side	70°F min.	Keep dry. Keep from freezing. Store in covered temperature controlled environment if possible.	Use dry air desiccant for intake vent on drum.
'B' Side	70°F min.	Keep dry. Keep from freezing. Store in covered temperature controlled environment if possible.	Mix well with mixer to re-disperse any settled pigment.

Safety: Please consult product MSDS for full details. Safety glasses, rubber gloves, protective clothing, organic vapor or fresh air respirator.