



VersaFlex Incorporated
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Material Processing & Handling Information

Material: FSS 50DM

Material Type: Fast Set Spray Polyurea Coating

Application: Metal 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: | Evolution G-250H | GDI (Mechanical) |
| PMC: | PMC GH-40 (Hydraulic) | PMC A-P2 (Air Purge) |
| Pentech USA: | | PalmGun or MG Gun (low output) |
| WIWA: | DuoMix 460 (Pneumatic) | Pentech MG (Mechanical) |
| Material Supply Pumps: | <u>Pump Type</u> | <u>Continuous delivery/output at 70°F/25°C</u> |
| Graco: | Standard 2:1 (T1) Diaphragm: | Up to 1.75 gpm, 9.5 lpm |
| | • Husky 515 | Up to 5 gpm, 26 lpm |
| | • Husky 716 | Up to 11 gpm, 61 lpm |
| IPM/Gusmer 2:1 (T2) | | Up to 3.85 gpm, 21 lpm |
| IR/ARO (2:1) | (for fluids <1000 cps) | Up to 1.4 gpm, 7.6 lpm |
| Process Temperature: | 160° F optimum (150°F min., 170°F max) | |
| Process Pressure: | 2,000 - 2,500 psi optimum (1,700 psi min., 3,500 psi max) | |
| Gel Time: | 3 – 7 seconds | |
| Tack Free: | 8 – 12 seconds | |

Light Traffic: 60 minutes

Moisture Content: Calcium Chloride test: 3 lb./24 hr./1,000 ft²
Concrete: 5% maximum as per ASTM F2170 & ASTM F2420

Application Temperature: -40°F and higher
Note that **FSS 50DM** will cure at sub-freezing temperatures, but the effects may impact the application in a variety of ways. It is recommended that material and equipment ambient temperatures be kept at 60°F and above.

Dew Point: Substrate temperature must be 5°F above dew point and rising before application of coating materials.

Surface Prep: Minimum acceptable preparation levels for proper adhesion are SSPC-SP 10, Near White Metal Blast Cleaning with proper angular mil profile depending on exposure.

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

Surface Primer: Concrete & other porous substrates: **VersaFlex** VF 15 or VF 20 (6 to 10 wet mils): Two-component sealer and primer. Follow recoat windows for each, after which a light recoat is required (2 to 4 wet mils).
Steel only: **VersaFlex** PW-1 (2 to 3 wet mils): Single component primer. Maximum overcoat time: 24 hours, after which a light recoat is required (1 to 2 wet mils).

Adhesion Testing: Light service: 500 psi
Heavy service: 750 psi

Coating Application: Coating thickness will vary by substrate profile and intended use. Consult **VersaFlex** for specific information.

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

| | Storage Temp | Storage | Special Handling |
|-----------------|---------------------------|--|---|
| 'A' Side | 60°F min. 70°F optimum | Keep dry. Keep from freezing. Store in covered temperature controlled environment if possible. | Use dry air desiccant for intake vent on drum. |
| 'B' Side | 60°F min. 70°F optimum | 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.
