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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)	Up to 1.75 gpm, 9.5 lpm
	Diaphragm:	
	• 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 ft ² 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.		