CONTINENTAL COATINGS INC.
HIGH-PERFORMANCE PROTECTION

Supra™ FM Product Bulletin

Supra™ ***Fluorocarbon Modified Coil Coating***
Product Bulletin: 09-100B
February 10, 2022

System Overview

Supra™FM coil coating system manufactured and distributed globally by Continental Coatings Inc. and Yung Chi Paint and Varnish Manufacturing Company Ltd., is a Premium Fluorocarbon Modified Polyester (FM) coil coating system engineered for high end metal building product applications and challenging exterior environments that require long life and extended warranty coverage.

Supra™FM system is formulated with a proprietary state of the art polyester resin and modified with a specialty **Fluorocarbon** polymer, which makes the coating more cleanable and stain resistant and also significantly more resistant to U.V. radiation and natural weathering than a traditional SMP.

Supra™FM uses the highest quality long lasting ceramic and metallic pigmentation to insure optimal exterior color fastness and longevity. This system is also available in multiple coats and various specialty high build systems for custom projects and perforated applications.

Supra™FM may be applied over the Universal **PU-11 High Molecular Weight Urethane Primer or PU-30 High-build Urethane primer systems** for extreme environment and extra-long service life warranted building product applications.

- Globally Available
- Complete U.S. WARRANTY SUPPORT Program
- Tough and Abrasion Resistant Coating Formulation
- Superior Corrosion and Wet-stack protection
- Specialty, Multi-coat and High Build Systems Available
- Long Term International Commercial and Industrial Experience

Application Parameters

Supra™FM system is designed for trouble free high line speed coil coating line application and has been run worldwide under a very wide range of application parameters and substrate conditions. Standard topcoat DFT is .70-.80 mils, which allows for optimal application consistency, color stability and exterior performance. ***Supra™FM*** was formulated to provide improved stain resistance and cleanability as well as scratch resistance and surface toughness while maintaining the good system flexibility required for long term bend line corrosion performance. ***Supra™FM*** paint film is extra tough and can handle difficult roll forming and panel stacking and transport conditions. Superior primer corrosion resistance and substrate adhesion provide significantly enhanced protection against wet stack storage problems of cut edge and scratch corrosion.

Commercial Uses

Supra™FM system can be formulated in standard, medium, textured, and low gloss/low sheen finishes and supplied in wide range but limited color pallet. This premium coating supports an extended warranty and can be applied to a variety of adequately cleaned and treated metal substrates including: Hot Dipped Galvanized, ZnAl, Galfan®, ZAM®, Aluminum, and Stainless Steels. ***Supra™FM*** is formulated primarily with IR Reflective COOL ROOF ceramic pigment technology and can be designed to meet and exceed U.S. Energy Star® requirements. It is most ideal for Metal Wall panels, Industrial and Agricultural Metal building components, high-end equestrian applications, commercial and residential Metal Roofing, and pre-engineered Metal Building System applications.

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APPLICATION		
SPECIFICATIONS	**TEST**	**RESULT**
Application Method		Reverse Roll Coat
Primer		PU11 HMW PU, PU30 High Build PU
Substrate		Aluminum, HDG, Galvalume®, ZAM®
Pretreatment	Standard clean and treat	Chrome, Zinc Phosphate, or approved non-chrome
ASTM D 4138	Dry Film Thickness	Top coat: 0.7 to 0.8 mils Primer: 0.15 to 0.4 mils Total system: 0.9 to 1.2 mils
ASTM D 4212	Viscosity (No. 4 Zahn cup)	25 to 35 seconds
ASTM D 1475	Weight Per Gallon	9.0 to 12.0 Pounds Per Gallon
ASTM D 2697	Solids Per Volume	50 to 55%
ASTM D 2369	Solids Per Weight	60 to 75%
Reducing Thinner	Reducing Solvent	Aromatic
ASTM D 3960	VOC (Theoretical)	3.0 to 4.0 Pounds Per Gallon
Clean-up Solvent		Aromatic/Ketone
Coating Mileage		1069 to 1176 Sq. Ft. / Gallon
Peak Metal Temperature		435 F to 450 F
TECHNICAL DATA		
SPECIFICATIONS	**TEST**	**RESULT**
ASTM D 523	Specular Gloss at 60	6 to 85
ASTM D 3363	Pencil Hardness	H TO 3H
ASTM D 4145	T-Bend	1T to 4T with no loss of adhesion
ASTM D 5402	Solvent Resistance (MEK Rubs)	100 +
ASTM D 3359	Cross Hatch Adhesion	No loss of adhesion
ASTM D 2794	Reverse Impact	Galvalume or HDG: 3x metal thickness inch-pounds, no loss of adhesion Aluminum: 1.5x metal thickness inch-pounds, no loss of adhesion
ASTM B 117	Salt Spray Resistance 1,000 hrs. Salt Spray Resistance 2,000 hrs.	Galvalume or HDG: Creep from scribe < 1/8 inch (3mm), none or few #8 blisters Aluminum: Creep from scribe < Creep from scribe < 1/16 inch (2mm), none or few #8 blisters
ASTM D 2244 ASTM D 4214	South Florida Exposure	Color: No more than 5 (E) Hunter units at 90 vertical angle and 7 (E) units non vertical Chalk: Rating no less that 8 at 90 angle and 6 at non vertical angle Film Integrity: 25 years, no blisters, peeling or cracking
ASTM D 870	Water Immersion 100 F 168 hrs.	No field blisters with minimal color change
ASTM D 1308	Chemical Resistance (15 mins.)	No significant color change
ASTM E 84	Flame Spread Classification	Class I or A
ASTM D 968	Abrasion Resistance	Total Sand = 35 +/- 5 liters (Dft dependent)
AAMA 2604-20	FGIA Voluntary Specification	Meets or exceeds all performance specifications

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