

LUMIFLON® Product Data Sheet

LUMIFLON LF-910LM



LUMIFLON fluoropolymer resins were developed in 1982 as the first solvent-soluble fluoropolymers in the world. LUMIFLON polymers consist of alternating fluoroethylene and alkyl vinyl ether segments (FEVE). The fluorinated segments provide outstanding UV stability, weather resistance, and chemical resistance, while the vinyl ether segments provide solvent compatibility and cross-linking sites. LUMIFLON resins are used to make ultra-weatherable coatings for architectural, aerospace, automotive, and industrial maintenance markets.

LUMIFLON LF-910LM is a low molecular weight, high OH number resin. It is typically used in applications where outstanding weathering is required along with excellent chemical resistance. Because of its low molecular weight, it is easily blended with standard coating resins form improved weatherability. Markets include heavy duty industrial coatings, architectural coatings, aerospace coatings, automotive coatings, and coatings for concrete.

Product Characteristics

- High OH functionality
- Excellent weatherability and water resistance, excellent chemical resistance
- Good adhesion to primers, fiberglass, plastics, and composites
- High solids for low VOC formulations
- Wide range of gloss possible
- Curable at both ambient and elevated temperatures
- Suitable for shop and field applied coatings

Typical Physical Properties LUMIFLON LF-910LM

Physical Property	Value
Appearance	Clear Liquid
Solids, wt. %	66%
OH Number, mg KOH/g-polymer	100
Specific Gravity, 25° C	1.16
Viscosity, Stokes	5

The data given in this product bulletin is for information purposes only. It is given in good faith and based on the best knowledge and experience of the company. This product should be used only in applications for which it was intended. This product is not designed for special applications such as pharmaceutical or other medical use. The company makes no warranties and undertakes no responsibilities regarding this product except as stated in contract documents for its supply.





Standard Formulation for Two-Component Coating with LUMIFLON LF-910LM

Pigment Paste

Ingredient	Ingredient Function	Parts By Weight
LUMIFLON LF-910LM	Resin	35.0
Ti-Pure 960 ¹	Pigment	35.0
Xylene	Solvent	30.0
Total		100.0

¹ DuPont

Let Down

Ingredient	Ingredient Function	Parts By Weight
Pigment Paste	Pigment	52.0
LUMIFLON LF-910LM	Resin	46.0
Xylene	Solvent	0.0
Dibutyl Tin Dilaurate (DBTDL, 0.0001 in xylene)	Catalyst	2.0
Total		100.0

Paint Formulation

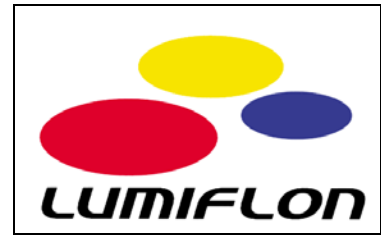
Ingredient	Ingredient Function	Parts By Weight
Main Pack	Described Above	100
Desmodur N-3300 ²	Crosslinker	14.6

² Bayer Corp.

Paint Formulation Characteristics

Property	Value
Solids Content, Wt. %	65.6
PVC, %	9.6
Specific Gravity, 25° C	1.24
Viscosity, Ford Cup #4, Seconds	40
VOC, g/l	427
VOC, lbs./gallon	3.6





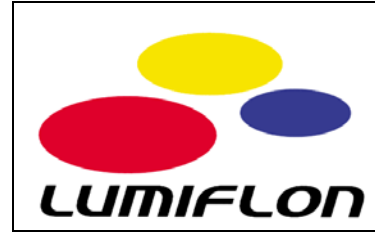
Coating Properties of Fluorourethane

Cure Conditions: 1 week, 23° C

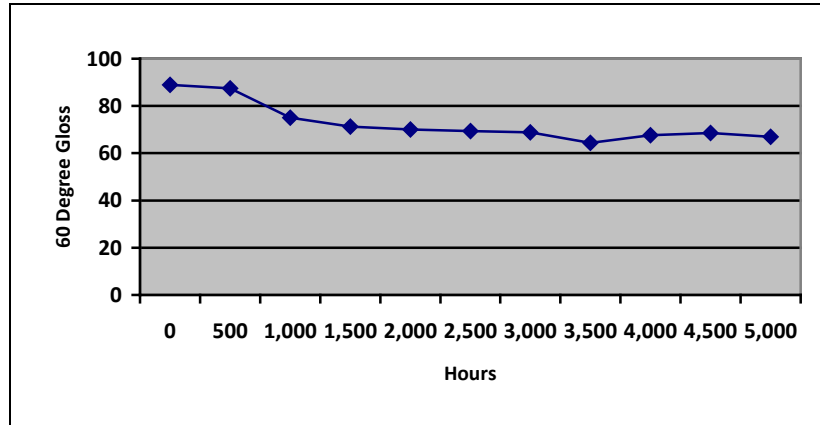
Substrate: Aluminum panels, 8 mm, acid chromated

Coating Properties of LF-910LM Based Fluorourethane

Property	Test Method		Results
Gloss	ISO 2813	20°	76
		60°	89
Pencil Hardness	ASTM D3363	Gouge	4H
Flexibility	ASTM D 4145	Mandrel bend	3T-4T (Paint fracture)
Flexibility	ISO 1520	Cupping test	>7mm (cracking)
Impact Resistance	ASTM D 2794 (Diameter=0.5")	Intrusion 0.5 kg	>0.5 m
		Extrusion 0.5 kg	>0.5 m
Cross Cut Adhesion	ASTM D 3359		5B
Water Resistance	ISO 2812 40° C, 24 hrs.		5B-3B/3B (Wet/dry)
	1. Cross Cut Adhesion, ASTM D 3359 2. Blistering, ASTM D 714 ISO 4628		No Blistering No Blistering



Accelerated Weathering of LUMIFLON LF-910LM: QUV-B Test



UV / Condensation Cabinet Cycle:
8 hours UV at 70° C and 4 hours Condensation at 50° C

