

LUMIFLON® LF-810 Resin

Product Data Sheet



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-810

LUMIFLON LF-810 is a high molecular weight, low OH number fluoropolymer resin. It is meant to be formulated without crosslinkers, yielding coatings with extremely high weatherability and corrosion resistance. Potential applications for coatings made with LF-810 include architectural, industrial maintenance, and bridge coatings.

Typical Physical Properties LUMIFLON LF-810

Physical Property	Value
Appearance	Clear Liquid
Gardener Color	< 2
Solids, wt. %	45%
OH Number, mg KOH/g-polymer	4
Acid Value, mg KOH/g-polymer	0.3
Specific Gravity, 25° C	0.98
Viscosity, Stokes	18

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.





Starting Formulation for Single Component Coating with LUMIFLON LF-810

Pigment Paste		Ingredient	Parts By Weight
Resin		LUMIFLON LF-810	22.2
Pigment		TiO ₂ , R-960 ¹	40.0
Solvent		Mineral Spirits	37.8
Total			100.0
Paint Formulation		Ingredient	
Pigment Paste		Described Above	35.0
Resin		LUMIFLON LF-810	65.0
Total			100.0

¹ DuPont

Properties of LF-810 Coating

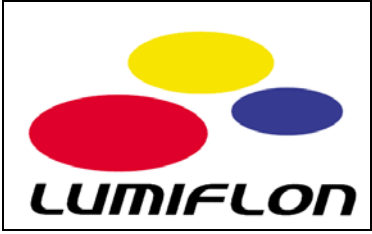
Cure Conditions: 1 week, 23° C

Substrate: Aluminum panels, 8 mm, acid chromated

Properties

Property	Test Method		Results
Gloss	ASTM D523	20°	64
		60°	85
Pencil Hardness	ASTM D3363	Gouge	HB
Flexibility	ASTM D 4145	Mandrel bend	0T (Paint fracture)
Flexibility	ISO 1520	Cupping test	6mm (cracking)
Impact Resistance	ASTM D 2794 (Diameter=0.5")	Intrusion 0.5 kg	>1.0 m
		Extrusion 0.5 kg	0.5 m
Cross Cut Adhesion	ASTM D 3359		5B





Accelerated Weathering of LF-810 Coating: Xenon Arc Weatherometer

