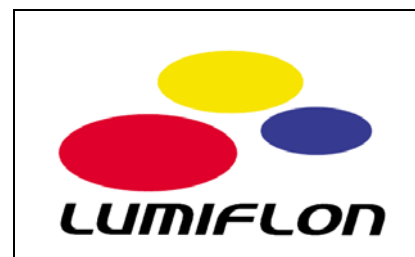


# LUMIFLON® Product Data Sheet

## LUMIFLON LF-552



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-552 is a moderate molecular weight, moderate OH number resin dissolved in a blend of cyclohexanone and Aromatic 150 solvent. LF-552 is used in coil coatings where outstanding weatherability is required. LF-552 is modified to improve pigment compatibility, resulting in crisp, clear colors in a broad range of colors. The major market for coil coatings made with LF-552 is in architectural coatings.

### Product Characteristics

- Moderate OH functionality
- Excellent weatherability
- Good adhesion to metals and primers
- Excellent flexibility for improved fabrication properties
- Excellent pigment compatibility
- Wide range of gloss possible
- Used with blocked isocyanates in shop applied coil coatings

### Typical Physical Properties

#### LUMIFLON LF-552

Physical Property	Value
Appearance	Clear Liquid
Non-volatiles, wt. %	40%
OH Number, mg KOH/g-polymer	52
Acid Number, mg KOH/g-polymer	5
T <sub>g</sub> , °C	20
Density, g/cc, 25° C	1.06

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.





## Formulation for Single Component Coating with LF-552

### Pigment Paste

Ingredient	Ingredient Function	Parts By Weight
LUMIFLON LF-552	Resin	20.0
Ti-Pure 960 <sup>1</sup>	Pigment	30.0
Cyclohexanone	Solvent	10.0
Aromatic 150	Solvent	40.0
Total		100.0

<sup>1</sup> DuPont

### Let Down (Main Package)

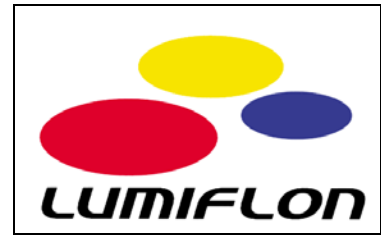
Ingredient	Ingredient Function	Parts By Weight
Pigment Paste	Pigment	33.1
LUMIFLON LF-552	Resin	50.6
Cyclohexanone	Solvent	3.2
Aromatic 150	Solvent	3.2
Dibutyl Tin Dilaurate (DBTDL, 0.0001 in Aromatic 150)	Catalyst	2.0
Desmodur BL-3175	Crosslinker	8.0
Total		100.0

<sup>2</sup> Bayer Corp.

### Paint Formulation Characteristics

Property	Value
Solids Content, Wt. %	38.8
PVC	11.1%
Specific Gravity, 25° C	1.09
Viscosity, Ford Cup #4, sec.	35
VOC, g/l	667
VOC, lbs./gal.	5.6





## Coating Properties of Fluorourethane

Cure Conditions: 50° C for 1 hour, baking at 160° C for 30 minutes

Substrate: Aluminum panels, 8 mm, acid chromated

### Coating Properties of LF-552 Based Fluorourethane

Property	Test Method		Results
Gloss	ISO 2813	20°	57
		60°	82
Pencil Hardness	ASTM D3363	Gouge	3H
Flexibility	ASTM D 4145	Mandrel bend	2T (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/5B (Wet/dry)
	1. Cross Cut Adhesion, ASTM D 3359 2. Blistering, ASTM D 714		No Blistering

