



LUMIFLON FE4300

FEVE Waterborne Resin Polyol

PRODUCT DESCRIPTION

LUMIFLON® FE4300 is a fluoroethylene vinyl ether waterborne resin used in applications requiring outstanding exterior durability. It is used as a blending resin for coatings that need high performance at a low VOC. It has a high molecular weight for 1K coatings with excellent resistance properties. Markets include light duty industrial coatings, architectural coatings, aerospace coatings, automotive coatings, and coatings for concrete.

CHARACTERISTICS

- Outstanding weatherability
- Cures under ambient conditions for field applications
- Good compatibility with a wide variety of commercial acrylic emulsions
- Applications include architectural, concrete, and direct-to-metal coatings

TYPICAL PROPERTIES

Property	LUMIFLON® FE4300
Appearance	Milky White
Weight Solids, %	50
pH	7-9
Ionic Character	Anionic
Particle Size, nm	100-200
Specific Gravity, 25°C	1.13
Minimum Film Forming T, °C	35

STARTING POINT FORMULATIONS

1K White DTM Coating with LUMIFLON FE4300

Pigment Paste: *Grind to Hegman 7+*

Trade Name	Type	Parts by Weight
D.I. Water	Diluent	20.0
Tamol™ 165A (Dow)	Dispersant	3.0
AMP™ 95 (Angus)	pH adj.	0.3
Carbowet® DC01 (Air Products)	Wetting Agent	0.9
BYK® 024 (Byk)	Defoamer	3.0
Nuosept™ 95 (Ashland)	Preservative	0.3
Tipaque PFC105 (Ishihara)	Pigment	60.0
Total		87.5

Let Down: *Add all ingredients under agitation*

Trade Name	Type	Parts by Weight
Avanse™ MV-100 (Dow)	Acrylic Emulsion	85.3
LUMIFLON FE4300	FEVE Emulsion	86.1
D.I. Water	Diluent	23.7
Pigment Paste (from above)	Pigment Paste	87.5
Dowanol™ DPM (Dow)	Co-solvent	2.7
Optiflim™ 400 (Eastman)	Low VOC Coalescent	4.3
Texanol™ (Eastman)	Co-solvent	1.5
AMP™ 95 (Angus) <i>adjust pH to 9.0-9.5</i>	pH adj.	0.3
Optiflo® H3300 VF (Byk) <i>adjust to 90-95 KU</i>	HEUR Thickener	1.7
Total		293.1

Property	Result
Solids Content, wt%	51.58
Volume Solids, %	38.83
Specific Gravity	1.257
PVC	16.40
VOC, g/L	47.9

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AGC Chemicals Americas, Inc.
Business & Technical Center
55 E. Uwchlan Ave, Suite 201
Exton, PA 19341
Phone: 610.423.4300
Fax: 610.423.4301
<http://www.agcchem.com>

1K Black DTM Coating with LUMIFLON FE4300

Paint: Add all ingredients under agitation

Trade Name	Type	Parts by Weight
D.I. Water	Diluent	7.5
Avanse™ MV100 (Dow)	Acrylic Emulsion	41.5
LUMIFLON FE4300	FEVE Emulsion	36.1
AMP™ 95 (Angus) <i>Adjust to pH 9.0-9.5</i>	pH adj.	0.2
Carbowet® DC01 (Dow)	Wetting Agent	0.6
BYK® 022 (Byk)	Defoamer	0.5
Nuosept™ 95 (Ashland)	Preservative	0.1
Dowanol™ DPnB (Dow)	Co-solvent	5.1
Tint-Ayd® CW5331 Masstone Black (Elementis)	Black Colorant	5.3
Rheovis® PU 1215 (BASF)	HEUR Thickener	3.1
Total		100.0

Property	Result
Solids Content, wt%	41.1
Weight/Gallon, lb/gal	8.96
VOC, g/L	150
Stormer Viscosity, KU	94
20/60 Gloss	33/73
Cross-hatch Adhesion	5B

STORAGE AND HANDLING

Keep away from sunlight and rain. Floor surface of storage place should be made of non-permeable materials to the ground such as concrete. Store in a cool, dry, well-ventilated location. Protect from freezing.

Wear appropriate safety glasses and gloves to avoid contact with eyes and skins. Hands should be washed thoroughly after handling. Suitable ventilation should be used during application.

PACKAGING

16kg pail
200kg drum

For more information and samples contact

AGC Chemicals Americas, Inc.
55 E. Uwchlan Avenue, Suite 201
Exton, PA 19341
Phone: (610) 423-4300 | Fax: (610) 423-4301

info@lumiflonusa.com

www.lumiflonusa.com

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WEATHERING DATA

QUV-A Accelerated Weathering of a Black DTM

