



Formosa Plastics®

Formolene® FR2375C

Fractional Melt LDPE Resin with no Slip or Antiblock

Formolene® FR2375C is a low density polyethylene with films exhibiting good stiffness and optical properties. Formolene® FR2375C is formulated without slip and antiblock for use in film applications offering excellent extrusion processing and very good balance of mechanical and optical properties.

Formolene® FR2375C meets all requirements of the U.S. Food and Drug Administration as specified in 21 CFR 177.1520, covering safe use of polyolefin articles intended for direct food contact.

Suggested Applications:

Agricultural Film	Collation Shrink	Medium Duty Shrink Film
Blend Partner	Freezer Film	Shoppers
Co-Extrusion	Lamination Film	Form Fill and Seal Packaging

Nominal Physical Properties:

PROPERTY	TEST METHOD	UNIT	VALUE
Density	D1505	g/cc	0.923
Melt Index, Condition E, 190C°/2.16 kg	D1238	g/10 min	0.75
Dart Impact	D1709	g	180
Elmendorf Tear Strength	D1922	g	350/150*
Tensile Strength at Break	D882	psi	4000/3200*
Elongation at Break	D882	%	310/530*
Secant Modulus @ 1%	D882	psi	35000/40000*
Gloss (45°)	D2457		59
Haze	D1003	%	8.4

* MD / TD

Note: Film properties based on 1.97 mil (50 micron) thick film produced using a 7.9 inch (200 mm) die and 39.4 mil (1.0 mm) die gap with a 2.5:1 Blow-Up Ratio and temperature profile of 356 - 374°F (180 - 190°C). Actual film properties may vary based on extrusion equipment, operating conditions and additive package. Film properties are not intended to be used as specifications.

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PRODUCT DATA SHEET



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Low Density Polyethylene

LF2103X

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www.sasolnorthamerica.com

Melt Index: 0.33 g/10min

Density: 0.921 g/cm³

Features

- Tubular Resin
- Good mechanical properties
- Wide processing range

Applications

- Heavy Duty Sacks
- Heavy Duty Shrink film
- Agricultural Film
- Blending with LLDPE

Additives

- Antioxidant

Typical properties (not to be construed as specifications)		Value (SI)	Value (English)	Method
Resin Properties	Melt Index (190°C/2.16kg)	0.33 g/10 min	0.33 g/10 min	ASTM D1238
	Density	0.921 g/cm ³	0.921 g/cm ³	ASTM D1505
	Base Density ⁽¹⁾	0.921 g/cm ³	0.921 g/cm ³	Sasol Method
Film Properties	Tensile strength at yield MD	1800 psi	12 MPa	ASTM D882
	Tensile strength at yield TD	1800 psi	12 MPa	ASTM D882
	Tensile strength at break MD	4500 psi	31 MPa	ASTM D882
	Tensile strength at break TD	4000 psi	28 MPa	ASTM D882
	Elongation MD	150 %	150 %	ASTM D882
	Elongation TD	630 %	630 %	ASTM D882
	1% Secant Modulus MD	32000 psi	220 MPa	ASTM D882
	1% Secant Modulus TD	43000 psi	296 MPa	ASTM D882
	Elmendorf Tear MD	190 g	190 g	ASTM D1922
	Elmendorf Tear TD	150 g	150 g	ASTM D1922
	Dart Drop Impact Strength (F ₅₀)	180 g	180 g	ASTM D1709A
	Haze	15 %	15%	ASTM D1003
	Gloss (45°)	39	39	ASTM D2457

(1) Base density is calculated assuming that the product doesn't contain any antiblock additive.

The above values were measured on a 2 mil (50.8 µm) film produced on a 2.5 inch (63.5 mm) blown film line with a 2.5:1 BUR using a die gap of 30 mil (0.8mm) die gap.

Handling

Workers should be protected from the possibility of skin or eye contact with molten polymer. Safety glasses are suggested as a minimal protection to prevent possible mechanical or thermal injury to the eyes. Fabrication areas should be ventilated to carry away fumes or vapours. Please consult the material safety data sheet (SDS) for more detailed information.

Storage

As ultraviolet light may cause a change in the material, all resins should be protected from direct sunlight during storage. If stored in cool (<77°F (25°C)), dry area with low ambient light levels, polyolefin resins are expected to maintain their original material and processing properties for at least 12 months.

Combustibility

Polyethylene resins will burn when supplied adequate heat and oxygen. They should be handled and stored away from contact with direct flames and/or other ignition sources. In burning, polyethylene resins contribute high heat and may generate a dense black smoke. Fires can be extinguished by conventional means with water and water mist preferred. In enclosed areas, fire fighters should be provided with self contained breathing apparatus.

Conveying

Conveying equipment should be designed to prevent accumulation of fines and dust particles that are contained in all polyethylene resins. The fines and dust particles can, under certain conditions, pose an explosion hazard. We recommend that the conveying system used:

- be equipped with adequate filters
- is operated and maintained in such a manner to ensure no leaks develop
- that adequate grounding exists at all times

It is further recommended that good housekeeping is practiced throughout the facility.