+135-3858-6433 (GuangDong)
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Polyethylene Lotrène® Q2018 C

Refining & Chemicals
Polymers

Technical data sheet
Linear Low Density Polyethylene
Produced in Qatar

Description

Lotrène® Q2018 C is an ethylene-butene copolymer produced in a gas phase reactor. It is designed for delivering competitive performance in most cast film applications.

Lotrène® Q2018 C can be processed at high output rates with moderate extrusion pressure, good bubble stability and gauge control on cast film machine designed for LLDPE.

Lotrène® Q2018 C can advantageously be blended with LDPE or other PE resins used in blown film mono extrusion or coextrusion to improve film properties.

Lotrène® Q2018 C is suited for many applications in the field of consumer, industrial, food or hygiene packaging as well as stretch film and non-packaging applications like agricultural films e.g. mulching films.
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Characteristics

Property	Method	Unit	Typical value
Density (*)	ASTM D-792	g/cm³	0.918
Melt Flow Rate (190°C/2.16 kg)	ASTM D-1238	g/10 min	2.0
Melting temperature	Internal method	°C	121
Vicat softening point	ASTM D-1525 (A120)	°C	100

(*) Density as measured on base resin.

Values indicated are typical for this product. Density and MFR are properties routinely measured during “the standard quality control procedure”. Other figures are generated by tests not included in the "standard quality control procedure". They are given for information only and are not intended for specification purposes.

Processing

Lotrène® Q2018 C is typically extruded at a melt temperature between 220°C and 250°C.

Lotrène® Q2018 C can be cast in the following conditions on machine designed for LLDPE:
>> Extrusion temperature: 180 to 250°C
>> Line speed : > 400 m/min
>> Die gap: > 0.8 mm

An excellent blending of Lotrène® Q2018 C with LDPE and HDPE and mLLDPE was observed.

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Additives

Antioxidant: yes
Processing aid: no
Slip agent: no
Antiblock agent: no

Blown film properties

These values have been measured on a 20 µm film.

	Method	Unit	Typical value (*)
Tensile Strength at Yield MD/TD	ISO 527-3	MPa	9.7/9.6
Tensile Strength at Break MD/TD	ISO 527-3	MPa	37/23
Elongation at Break MD/TD	ISO 527-3	%	330/670
Elmendorf MD/TD	ISO 6382-2	N/mm	12/193
Secant modulus at 1% MD/TD	ISO 178	MPa	165/170
Dart test, F50	ISO 7765-1	g	35
Haze	ISO 14782	%	1.8
Gloss 45°	ASTM D2457		92

(*) The above properties are measured on cast line with following parameters: 30 mm screw diameter, L/D = 30:1, die length = 600 mm, die gap = 0.8 mm, line speed = 50 m/min, temperature setting = 180-230°C. Melt temperature = 250 °C and Chill roll temperature = 25 °C