

Lotrène® Q1018 Series

LINEAR LOW DENSITY POLYETHYLENE
(LLDPE)

DESCRIPTION AND USE

Lotrène® Q1018 Series are Linear Low Density Polyethylene resins produced in a gas phase reactor using butene (C4) co-monomer.

They are designed for blown film applications and can be used in pure form as well as blended with other PE resins, such as LDPE or HDPE AND mPE resins for mono extrusion or co-extrusion process to modify film properties.

Lotrène® Q1018 Series are suited for many applications in the field of consumer, agricultural, industrial, food or hygiene packaging, for example: collation shrink, liners, FFS bags, heavy duty sacks, refuse, tunnel films, mulching films..

PROCESSING

Extrusion temperatures: 180-220 °C

Melt temperature 200 °C

Blow-up ratio: 2:1 to 3:1

Die gap: > 1.8 mm

Lotrène Q1018 Series can be processed at high output rates with moderate extrusion pressure, good bubble stability and gauge control on blown film lines designed for LLDPE.

Lotrène Q1018 Series can be blended with LDPE and other PE resins in order to improve film properties or process ability on conventional mono or co extrusion machines.

ADDITIVE PACKAGE

PRODUCT	SLIP (ERUCAMIDE) (PPM)	ANTIBLOCK (PPM)	THERMAL STABILIZERS
Q1018N	no	no	Yes (blown film)
Q1018H	1500	3200	Yes (blown film)

Values indicated are target values. Actual values might differ from batch to batch.

PROPERTIES

POLYMER PROPERTIES	VALUE	UNIT	TEST METHOD
Density* @ 23 °C	0.918	g/cm3	ASTM D-792
Melt flow index (190 °C /2.16 kg)	1.0	g/10 min.	ASTM D-1238
Crystalline melting point	122	°C	Internal
Vicat softening point	100	°C	ASTM D1525-(A120)

(* Density of base resin)

FILM PROPERTIES	VALUE (*)	UNIT	TEST METHOD
Tensile strength @ yield MD/ TD	11/11	MPa	ASTM D-882
Tensile strength @ break MD/ TD	33/38	MPa	ASTM D-882
Elongation @ break MD/ TD	850/800	%	ASTM D-882
Secant modulus @ 1% MD/ TD	245/215	MPa	ASTM D-882
Impact strength, F 50	150	g	ASTM D-1709
Tear resistance MD/ TD	480/280 120/70	g N/mm	ASTM D- 1922
Haze	11	%	ASTM D-1003
Gloss (@ 45 °)	60	-	ASTM D-2457

(The above properties are measured on a blown film under following parameters: Screw 45 mm, L/D 30, die gap 2.2 mm, output 30 kg/hr, mass temperature °210C, thickness 40 µm and BUR 2.5:1)

HANDLING & STORAGE

Polyethylene products should be stored in their original packaging or in clean appropriate silos. The products should be stored in a dry and well-ventilated area and should not be exposed to direct sunlight and/ or heat in any form since this may adversely affect their properties.

As a general rule, our products should not be stored for more than three months from receipt date.

SAFETY

Under normal conditions Lotrène® products do not present a toxic hazard through skin contact or inhalation. For detailed information please refer to the Safety Data Sheet.

FOOD CONTACT & REACH

Lotrène® polyethylene products manufactured by Qatofin Company Ltd (Qatofin) comply with US, EU and other food contact legislations. Limitations may apply. Please contact your QatarEnergy marketing representative for detailed compliance certificates.

All Qatofin Lotrène products are comply with REACH Regulation 1907/2006/EC. The aims of this regulation are to improve the protection of human health and the environment through better and earlier identification of the intrinsic properties of chemical substances.

NOT SUITABLE FOR PHARMACEUTICAL OR MEDICAL APPLICATIONS

Lotrène® products are not suitable for pharmaceutical or medical applications.

TECHNICAL DISCLAIMER

Before using this product, the user is advised and cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question and is further advised against relying on the information contained herein as it may relate to any specific use or application. It is the ultimate responsibility of the user to ensure that the product is suited for and the information is applicable to the user's specific application. Any data included herein is based upon analysis of representative samples in a laboratory environment and not the actual product shipped. The values indicated in this datasheet should not be used for specification purposes. The information in this document relates only to the named product or material when not in combination with any other product or materials. The information is based on data believed to be reliable on the date compiled. We do not make, and expressly disclaims, all warranties, including warranties of merchantability or fitness for a particular purpose, regardless of whether oral or written, express or implied, or allegedly arising from any usage of any trade or from any course of dealing in connection with the use of the information contained herein or the product itself. The user expressly assumes all risk and liability, whether based in contract, tort or otherwise, in connection with the use of the information contained herein or the product itself. Further, information contained herein is given without reference to any intellectual property issues for which any liability for infringement or alleged infringement are fully disclaimed, as well as any international laws which may be encountered in the use thereof. Such questions should be investigated by the user. Trademarks may not be used in any manner other than expressly authorized in a written agreement and no trademark or license rights of any kind are granted hereunder, by implication or otherwise.