

# Lotrène Q2018 Series

LINEAR LOW DENSITY POLYETHYLENE

## Linear Low Density Polyethylene (LLDPE)

### DESCRIPTION AND USE

Lotrène® Q2018 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® Q2018 Series are suited for many applications in the field of consumer, industrial, food or hygiene packaging such as freezer film, bread bags, shoppers and bags as well as lamination film and multilayer packaging film.

### ADDITIVE PACKAGE

Product	Slip (Erucamide) (ppm)	Antiblock (ppm)	Thermal Stabilizers
Q2018N	no	no	Yes (blown film)
Q2018H	1500	3200	Yes (blown film)
Q2018C			Yes (cast film)

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

### PROPERTIES

POLYMER PROPERTIES	VALUE	UNIT	TEST METHOD
Density*	0.918	g/cm <sup>3</sup>	ASTM D-792
Melt Flow Index (190 °C /2.16 kg)	2.0	g/10 min.	ASTM D-1238
Crystalline Melting Point		°C	Internal
Vicat Softening Point	100	°C	ASTM D-1525 (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	35/32	MPa	ASTM D-882
Elongation @ Break MD/ TD	850/900	%	ASTM D-882
Secant modulus @ 1% MD/ TD	215/245	MPa	ASTM D-882
Impact Strength, F 50	130	g	ASTM D-1709
Tear resistance MD/ TD	220/420 55/105	g N/mm	ASTM D- 1922
Haze	14	%	ASTM D-1003
Gloss (@ 45 °)	55	-	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 210°C, thickness 40 µm and BUR 2.5:1)