



# SCLAIR® 19K Resin

## Homopolymer HDPE Film Resin

Property	ASTM (1)	Typical Values (2)	
Melt Index <sup>(3)</sup>	D 1238	0.95 g/10 min	
Density	D 792	0.958 g/cm <sup>3</sup>	
Hardness, Shore D	D 2240	68	
		METRIC UNITS	ENGLISH UNITS
Vicat Softening Point	D 1525	131 °C	268 °F

Melt Index	0.95
Density	0.958
Slip	None
Antiblock	None

### Film Properties<sup>(4)</sup>

Thickness		38 µm	1.5 mil
Tear Strength	MD D 1922	26 g	
	TD	711 g	
Dart Drop Impact, F <sub>50</sub>	D 1709/A	44 g	
Low Friction Puncture <sup>(5)</sup>		20 J/mm	4 in-lb/mil
Tensile Strength	MD D 882	42 MPa	6,100 psi
	TD	40 MPa	5,800 psi
Yield Strength	MD D 882	25 MPa	3,600 psi
	TD	27 MPa	3,900 psi
Elongation	MD D 882	560 %	560 %
	TD	890 %	890 %
1% Secant Modulus	MD D 882	840 MPa	121,800 psi
	TD	1,180 MPa	171,100 psi
OTR <sup>(6)</sup>	D 3985	1,488 cm <sup>3</sup> /m <sup>2</sup> /day	96 cm <sup>3</sup> /100in <sup>2</sup> /day
MVTR <sup>(7)</sup>	F 1249	2.64 g/m <sup>2</sup> /day	0.17 g/100 in <sup>2</sup> /day

### Features

- High stiffness
- Excellent barrier properties
- Low gel

### Additives

- Processing antioxidant

### Applications

- Barrier films
- Co-extrusion
- Dry food packaging
- Blending

(1) Properties designated have been determined using methods which are in accordance with, or substantially in accordance with, the specified testing standards.

(2) Typical Values represent average laboratory values and are intended as guides only, not as specifications.

(3) Condition 190°C/2.16 kg.

(4) Film properties are typical of blown film extruded on a 2.5" extruder with 4" die and 35-mil die gap at a blow up ratio of 2.5:1, but are dependent upon operating conditions.

(5) NOVA Chemicals test method.

(6) Oxygen Transmission Rate, 23°C (74°F), 0% RH, atmospheric pressure.

(7) Moisture Vapour Transmission Rate, 38°C (100°F), 100% RH, atmospheric pressure.



# SCLAIR 19K Resin

## Homopolymer HDPE Film Resin

### Availability

SCLAIR 19K polyethylene resins are available in bulk hopper cars, hopper trucks, boxes, sea bulk containers, or bags. The product type and batch number are clearly marked on each container. Contact the NOVA Chemicals sales office nearest you for availability in your area.

### Storage/Handling

SCLAIR 19K resin should be stored in a clean, dry place at ambient temperatures. Prolonged or improper storage can result in deterioration of product properties. Care should be taken when handling and transferring product to prevent foreign matter contamination. The NOVA Chemicals Safety Data Sheet (SDS) contains important safety information and should be reviewed before using the product.

### Processing Conditions

Comprehensive assistance with processing conditions and technology is available from NOVA Chemicals Technical Service at (403) 291-8444.

### Food Packaging Status

United States: SCLAIR 19K resin complies with the specifications contained in the U.S. Food and Drug Administration (FDA) regulation 21 CFR 177.1520 for olefin polymers, para. (c) 2.2, and may thus be used in the United States as an article or component of an article intended for use in contact with food, without food-type restrictions, under Conditions of Use A–H (21 CFR 176.170(c) Table 2

Other Countries: For regulatory compliance information for other countries, please contact your nearest NOVA Chemicals office.

### Environmental

NOVA Chemicals polyethylene resins are biologically and chemically inert, but improper disposal may present an ingestion hazard to wildlife. Where recycling of NOVA Chemicals' polyethylene resins is not possible, disposal to landfill or incineration in accordance with all applicable government laws and regulations is recommended. Please contact NOVA Chemicals Technical Service for further information on recycling and disposal of NOVA Chemicals resins.



is the SPI resin code developed for high density polyethylene to identify material type for sorting and recycling purposes.

The NOVA Chemicals logo is a registered trademark of NOVA Brands Ltd.; authorized use/utilisation autorisée.

SCLAIR® is a registered trademark of NOVA Chemicals Corporation in Canada and of NOVA Chemicals (International) S.A. elsewhere; authorized use/utilisation autorisée.

The above information is provided in good faith. NOVA Chemicals is not responsible for any processing or compounding which may occur to produce finished articles, packaging materials or their components. Further, NOVA CHEMICALS MAKES NO WARRANTY OR REPRESENTATION OF ANY KIND, REGARDING THE INFORMATION GIVEN FOR THE PRODUCTS DESCRIBED, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, REPRESENTATIONS AND CONDITIONS, INCLUDING WITHOUT LIMITATION ALL WARRANTIES AND CONDITIONS OF QUALITY, MERCHANTABILITY AND SUITABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Responsibility for use, storage, handling and disposal of the products described herein is that of the purchaser or end user.

May 4, 2018