



ASTUTE™ QPsK905-A Resin

Plastomer PE Film Resin

Property	ASTM (1)	Typical Values(2)	
Melt Index(3)	D 1238	0.85 g/10 min	
Density	D 792	0.905 g/cm ³	
		METRIC UNITS	ENGLISH UNITS
Film Properties(4)			
Thickness		25 µm	1.0 mil
Tear Strength	MD D 1922	162 g	
	TD	311 g	
Dart Drop Impact, F ₅₀	D 1709/A	427 g	
Impact Total Energy(5)		4.2 J	3.1 ft-lb
Low Friction Puncture(5)		120 J/mm	27 in-lb/mil
Tensile Strength	MD D 882	47 MPa	6,800 psi
	TD	44 MPa	6,400 psi
Yield Strength	MD D 882	6 MPa	900 psi
	TD	6 MPa	900 psi
Elongation	MD D 882	490 %	
	TD	800 %	
1% Secant Modulus	MD D 882	90 MPa	13,100 psi
	TD	92 MPa	13,300 psi
Haze	D 1003	3 %	
Gloss @ 45°	D 2457	76	
Vicat Softening Point	D 1525	88 °C	190 °F
OTR(6)	D 3985	16,025 cm ³ /m ² /day	1,034 cm ³ /100in ² /day
MVTR(7)	F 1249	34.6 g/m ² /day	2.2 g/100 in ² /day
Seal Initiation Temperature (SIT)(5,8,9)		90 °C	194 °F

Melt Index 0.85
Density 0.905

Features

- Hermetic seals and excellent package integrity
- High oxygen permeability
- Good puncture resistance
- Excellent optical properties
- Low SIT

Applications

- Sustainable and recyclable packaging
- Fresh produce
- Meat and cheese packaging
- Dry foods and snack packaging
- Impact modifier/booster

(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.

(8) The seal initiation temperature is the temperature at which a 2-mil film achieves a seal strength of 8.8N/25.4mm.

(9) Tested at 0.5s dwell, 0.27 N/mm² bar pressure, 305 mm/min pull speed.



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Availability

ASTUTE QPsK905-A 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

ASTUTE QPsK905-A 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: ASTUTE QPsK905-A resin complies with the U.S. Federal Food, Drug, and Cosmetic Act as a food contact substance (FCS) as a result of a premarket notification to the FDA with an effective date of January 24, 2023, Food Contact Notification (FCN) 2251. This FCN permits use of this product in articles or components of articles in contact with all food types, except for infant formula and human milk, 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 low density and linear low density polyethylene to identify material type for sorting and recycling purposes.

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