Manufacturer website: https://www.novachem.com/

NOVA Chemicals
Polyethylene

Product Data Sheet

NOVAPOL® HE-Y449-AC Resin

Hexene Copolymer HDPE Pipe Extrusion Resin

Property		ASTM (1)	Typical Values (2)			
Melt Index	(3)	D 1238	0.3	g/10 min		
Density		D 792	0.949	g/cm³		
Hardness, Shore D		D 2240	61			
			METRIC UNITS		ENGLISH UNITS	
Vicat Softening Point		D 1525	124	°C	255	°F
Low Temperature Brittleness Point		D 746	< -70	°C	< -94	°F
Flexural Modulus (2% Strain)		D 790	840	MPa	121,800	psi
Melting Point (DSC)			130	°C	266	°F
Yield Strength	(4)	D 638	24	MPa	3,500	psi
Elongation	(4)	D 638	650	%	650	%
ESCR, (F_{50})	(5)	D 1693	> 1 000	h		
ESCR, (F_{10})	(6)	D 1693	> 100	h		
Izod Impact		D 256	1.1	J/cm	2.0	ft-lb/in
Oxidative Induction Time	(7)		10	min		

(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) Tensile testing was conducted at a crosshead speed of 2 in/min.

(5) Environmental stress crack resistance, Condition B, 100% Igepal.

(6) Environmental stress crack resistance, Condition B, 10% Igepal.

(7) Condition 220°C in oxygen gas environment.

Melt Index	**0.3**
Density	**0.949**

Features

- ASTM D3350 Cell Class/ PE435580A (natural)
- Medium molecular weight HDPE
- High ESCR
- Good toughness
- Good chemical resistance
- Good processability

Additives

- Processing antioxidant

Applications

- Corrugated tubing (up to 250 mm/10 in diameter)
- Conduit

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Availability

NOVAPOL HE-Y449-AC 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

NOVAPOL HE-Y449-AC 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.

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.

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June 18, 2026