

High Impact
Product Data Sheet

FEATURES:	APPLICATIONS:
<ul style="list-style-type: none"> • Extrusion Grade • High Impact • Good Environmental Stress Crack Resistance • Low Gloss (matte finish) • Color Consistency • Low Gels • Trims Cleanly • USP Class VI • UL Classification 94 HB 	<p>Custom Sheet for:</p> <ul style="list-style-type: none"> • Cosmetics Packaging • Consumer Products • Novelty Products • Food and Beverage Signs • Thermoformed Parts

Properties (1)	S.I. Units	Typical Values (2) (S.I.)	English Units	Typical Values (2) (Eng.)	ASTM
Tensile Strength, Yield	MPa	20	psi	2,900	D 638
Elongation at Failure	%	70	%	70	D 638
Tensile Modulus	MPa	1,897	psi x 10 ³	275	D 638
Flexural Strength @ 5%	MPa	48	psi	7,000	D 790
Flexural Modulus	MPa	2,069	psi x 10 ³	300	D 790
Impact Strength, Notched Izod, 1/8" bar, 0.010" Notch Radius	J/m	139	ft-lb/in of notch	2.6	D 256
Melt Flow Rate, 200/5.0	g/10 min	2.5			D 1238
Vicat Softening Temp. Method B	°C	99	°F	210	D 1525
DTUL @ 1.8 MPa (264 psi)	°C	84	°F	183	D 648
Specific Gravity	-	1.04	-	1.04	D 792
Linear Mold Shrinkage	mm/mm	0.004 - 0.007	in/in	0.004 - 0.007	D 955

(1) Properties were determined on injection molded specimens following the protocols of ASTM D4549 "Standard Specification for Polystyrene Molding and Extrusion Materials" unless otherwise specified.

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

IMPACT PS

TEST METHODS

The product properties designated in this standard have been determined in accordance with the current issues of the specified testing methods. Methods of the American Society for Testing and Materials (ASTM) are used wherever applicable.

AVAILABILITY

INEOS NOVA polystyrene resins are available in bulk railcar, truckload quantities, multiwall bags or 500 kg (1,102 lb.) cartons.

PROCESSING

Recommended Melt Temp.	375°F – 525°F 190°C – 274°C
Recommended Mold Temp.	100°F – 180°F 38°C – 82°C
Hardness, Rockwell M Scale	40
Electrical Properties:	
Dielectric Constant at 10 ⁶ CPS	2.59
Dielectric Strength, 1/8"	500
In addition, exposure to gamma radiation in the 2.02-6.06 megarad range has no significant effect on the physical and optical properties of the material.	



Each of INEOS NOVA polystyrene manufacturing facilities has achieved ISO 9002 certification, a further assurance of our quality products, services, and solutions.



We are guided by Responsible Care principles; we will never compromise our commitment to personal and corporate integrity, workplace health and safety, and protection of the environment. INEOS NOVA is a leader in emergency response and community outreach.

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FOOD PACKAGING STATUS

Canada: Please contact INEOS NOVA for information on the use of this resin in the packaging of specific foodstuffs in Canada.

United States: Complies with the specifications contained in U.S.A. Food and Drug Administration (FDA) regulation 21 CFR 177.1640 for polystyrene and rubber-modified polystyrene, and thus may be used in the United States as an article or a component of an article intended for use in contact with food, subject to any limitations described in the regulations.

ENVIRONMENTAL

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



PS is the SPI resin code developed for polystyrene to identify material type for sorting and recycling purposes.

TECHNOLOGY

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SALES AND MARKETING

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