DOW™ LDPE 993I

Low Density Polyethylene Resin

The Dow Chemical Company

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Technical Data

Product Description

- Low Density Polyethylene (LDPE)
- Typical applications include toys, lids, and closures
- Good gloss, rigidity, excellent flow
- Complies with U.S. FDA 21 CFR 177.152 (c) 2.1
- Complies with Canadian HPFB No Objection (With Limitations)
- Complies with EU, No 10/2011
- Consult the regulations for complete details

DOW Polyethylene 993I Low Density Polyethylene Resin is a medium molecular weight distribution homopolymer designed to offer good gloss and rigidity with excellent flow characteristics. This resin has good processability over a wide range of molding conditions.

General

Material Status	• Commercial: Active		
Literature [1]	• Technical Datasheet		
Search for UL Yellow Card	• The Dow Chemical Company		
Availability	• Asia Pacific	• Latin America	• North America
Additive	• Antiblock: No	• Processing Aid: No	• Slip: 400 ppm
Agency Ratings	• EU No 10/2011	• FDA 21 CFR 177.1520(c) 2.1	• HPFB (Canada) No Objection [2]
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Nominal Value	Unit	Test Method
Density	0.923	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	25	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
50°C, 100% Igepal, F50	< 1.00	hr	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength			ASTM D638
Yield	10.3	MPa	
Break	11.7	MPa	
Tensile Elongation			ASTM D638
Yield	3.0	%	
Break	40	%	
Flexural Modulus - 2% Secant	317	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	420	J/m	ASTM D256
Tensile Impact Strength [4]	252	kJ/m²	ASTM D1822
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	43		ASTM D2240
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	40.0	°C	
Brittleness Temperature	-33.9	°C	ASTM D746
Vicat Softening Temperature	92.8	°C	ASTM D1525
Melting Temperature (DSC)	110	°C	Internal Method
Peak Crystallization Temperature (DSC)	100	°C	Internal Method

Additional Information

Plaque molded and tested in accordance with ASTM D4976.

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Notes

[1] These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

[2] With limitations

[3] Typical properties: these are not to be construed as specifications.

[4] Type S

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Where to Buy

Supplier

The Dow Chemical Company
Telephone: +1-800-258-2436 (Americas); 00800-3-694-6367 (Europe, Middle East, Africa, and India); +800-7776-7776 (Asia Pacific)
Web: http://www.dow.com

Distributor

Avient Distribution
Avient Distribution is a global distribution company. Contact Avient Distribution for availability of individual products by country.
Telephone: +1-440-930-3004 (USA); +86-21-6028-4805 (China)
Web: https://now.avient.com/
Availability: Global

Entec Polymers
Telephone: 833-319-0299
Web: https://www.entecpolymers.com/?utm_source=ul&utm_medium=paid%20association&utm_campaign=entec%20%7C%20entec%201&utm_term=ul%20%7C%20where%20to%20buy
Availability: North America

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