Technical Data Sheet

DOWLEX™ 2344 Polyethylene Resin

Description

DOWLEX™ 2344 Polyethylene Resin an ethylene-octene copolymer, produced in the proprietary solution process of The Dow Chemical Company. It has a unique molecular structure with a controlled side chain distribution, which provides excellent stress crack resistance properties combined with very good long term hydrostatic strength.

Processability: Typical extrusion temperatures for processing of DOWLEX™ 2344 Polyethylene Resin range from 190 to 230°C. The use of a reverse temperature profile may be beneficial on certain types of processing equipment. For further information, see our Extrusion Guideline.

Applications

Pipes for hot and cold water systems, e.g.:

- Floor heating
- Wall heating/cooling
- Ceiling cooling
- Radiator connections
- Warm / cold drinking water distributions
- Heat recovery systems
- Solar panels

Complies with

- European Commission Regulation (EU), No 10/2011
- U.S. FDA 21 CFR 177.1520(c)3.2a (with Restrictions)
- NSF International
- NSF/ANSI Standard 14
- NSF/ANS/CAN Standard 61

Consult the regulations for complete details.

Additive

- Antiblock: No
- Processing aid: No
- Slip: No

Properties[1]

Physical	Nominal Value	Unit	Test Method
Density	0.933	g/cm^3	ISO[2] 1183
Melt Mass-Flow Rate (MFR)			ISO 1183
190°C/2.16 kg	0.70	g/10 min	
190°C/5.0 kg	2.2	g/10 min	

1. Typical properties: these are not to be construed as specifications.
2. ISO: International Standardization Organization.

Properties (Cont.)

Physical	Nominal Value	Unit	Test Method
Environmental Stress-Cracking Resistance (ESCR)			ASTM[3] D1693
122°F (50°C), 10% Antarox	> 8760	hr	
Mechanical			
Tensile Modulus,			ISO 527-1
0.0787 in (2.00 mm), Compression Molded	580	MPa	
Tensile Stress			ISO 527-2/50
Yield, 0.0787 in (2.00 mm), Compression Molded	16.5	MPa	
Break, 0.0787 in (2.00 mm), Compression Molded	34.0	MPa	
Tensile Strain			ISO 527-2/50
Yield, 0.0787 in (2.00 mm), Compression Molded	13	%	
Break, 0.0787 in (2.00 mm), Compression Molded	> 800	%	
Flexural Modulus			
0.0787 in (2.00 mm), Compression Molded	550	MPa	ISO 178
Hardness			
Shore Hardness			ISO 868
Shore D, 0.0787 in (2.00 mm), Compression Molded	53		
Thermal			
Vicat Softening Temperature	122	°C	ASTM D1525
CLTE – Flow (68 to 158°F (20 to 70°C))	2.0E-4	cm/cm/°C	DIN[4] 53752
Thermal Conductivity (140°F (60°C))	0.40	W/m/K	DIN 52612

3. ASTM: American Society for Testing and Materials.
4. DIN: Deutsche Industrie Norm.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

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Medical Applications Policy (Cont.)

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Harmful Applications Policy

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Contact:
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