



DOWLEX™ 2344 Polyethylene Resin

Overview DOWLEX* 2344 Polyethylene Resin is 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.

Complies with:

- Europe EU-Directive 2002/72/EC
- U.S. FDA 21 CFR 175.105(c)(5)
- U.S. FDA 21 CFR 177.1520(c)3.2a (with Restrictions)
- NSF 14
- NSF 61

Applications:

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

- floor heating
- wall heating/cooling
- ceiling cooling
- radiator connections
- warm / cold drinking water distribution
- heat recovery systems
- solar panels

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.933 g/cm ³	0.933 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	0.70 g/10 min	0.70 g/10 min	
190°C/5.0 kg	2.2 g/10 min	2.2 g/10 min	
Environmental Stress-Cracking Resistance			ISO 180
122°F (50°C), 10% Antarox	> 8760 hr	> 8760 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			ISO 527-2
0.0787 in (2.00 mm), Compression Molded	84100 psi	580 MPa	
Tensile Stress			ISO 527-2/50
Yield, 0.0787 in (2.00 mm), Compression Molded	2390 psi	16.5 MPa	
Break, 0.0787 in (2.00 mm), Compression Molded	4930 psi	34.0 MPa	
Tensile Strain			ISO 527-2/50
Yield, 0.0787 in (2.00 mm), Compression Molded	13 %	13 %	
Break, 0.0787 in (2.00 mm), Compression Molded	> 800 %	> 800 %	
Flexural Modulus			ISO 178
0.0787 in (2.00 mm), Compression Molded	79800 psi	550 MPa	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Shore Hardness			ISO 868
Shore D, 0.0787 in (2.00 mm), Compression Molded	53	53	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	252 °F	122 °C	ASTM D1525
CLTE - Flow (68 to 158°F (20 to 70°C))	0.00011 in/in/°F	0.00020 cm/cm/°C	DIN 53752
Thermal Conductivity (140°F (60°C))	2.8 Btu·in/hr/ft ² /°F	0.40 W/m/K	DIN 52612

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

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Published: 2005-05-05

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