



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

Properties¹

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) 122°F (50°C), 10% AntaroX	> 8760	hr	ASTM ³ D1693
Mechanical			
Tensile Modulus, 0.0787 in (2.00 mm), Compression Molded	580	MPa	ISO 527-1
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.

