

**DOWLEX™ 2355 Polyethylene Resin****Description**

DOWLEX™ 2355 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™ 2355 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)

Consult the regulations for complete details.

Additive

- Antiblock: No
- Processing Aid: No
- Slip: No

Properties¹

Physical	Nominal Value	Unit	Test Method ²
Density	0.931	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	0.70		
190°C/2.16 kg	2.3		
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
122°F (50°C), 10% Antaron	> 8760	hr	

1. Typical properties: these are not to be construed as specifications.
2. ISO: International Standardization Organization.
ASTM: American Society for Testing and Materials.

Properties (Cont.)

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus, 0.0787 in (2.00 mm), Compression Molded	399	MPa	ISO 527-1
Tensile Stress			ISO 527-2/50
Yield, 0.0787 in (2.00 mm), Compression Molded	14.0	MPa	
Break, 0.0787 in (2.00 mm), Compression Molded	36.0	MPa	
Tensile Strain			ISO 527-2/50
Yield, 0.0787 in (2.00 mm), Compression Molded	6.0	%	
Break, 0.0787 in (2.00 mm), Compression Molded	> 800	%	
Flexural Modulus 0.0787 in (2.00 mm), Compression Molded	429	MPa	ISO 178
Hardness			
Shore Hardness			ISO 868
Shore D, 0.0787 in (2.00 mm), Compression Molded	59		
Thermal			
Vicat Softening Temperature	119	°C	ASTM D1525
CLTE – Flow (68 to 158°F (20 to 70°C))	2.7E-4	cm/cm/°C	DIN ³ 53752
Thermal Conductivity (140°F (60°C))	0.40	W/m/K	DIN 52612

3. DIN: Deutsche Industrie Norm

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Medical Applications Policy (Cont.)

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