



DOWLEX™ 2344

The Dow Chemical Company - Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

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:

- EU, No 10/2011
- 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

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Additive	• Antiblock: No	• Processing Aid: No	• Slip: No
Agency Ratings	• EU No 10/2011 • FDA 21 CFR 177.1520	• NSF STD-14 • NSF STD-61	
Forms	• Pellets		
Processing Method	• Extrusion Coating	• Profile Extrusion	

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.935		ASTM D792
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	0.70	g/10 min	
190°C/5.0 kg	2.2	g/10 min	
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
122°F, 10% Antarox	> 8760	hr	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (0.0787 in, Compression Molded)	84100	psi	ISO 527-2
Tensile Stress (Yield, 0.0787 in, Compression Molded)	2390	psi	ISO 527-2/50
Tensile Stress (Break, 0.0787 in, Compression Molded)	4930	psi	ISO 527-2/50

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Mechanical	Nominal Value	Unit	Test Method
Tensile Strain (Yield, 0.0787 in, Compression Molded)	13	%	ISO 527-2/50
Tensile Strain (Break, 0.0787 in, Compression Molded)	> 800	%	ISO 527-2/50
Flexural Modulus (0.0787 in, Compression Molded)	79800	psi	ISO 178
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868
Shore D, 0.0787 in, Compression Molded	53		
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	252	°F	ASTM D1525
CLTE - Flow (68 to 158°F)	1.1E-4	in/in/°F	DIN 53752
Thermal Conductivity (140°F)	2.8	Btu·in/hr/ft²/°F	DIN 52612

Notes

¹ Typical properties: these are not to be construed as specifications.