Pipe Resin

Dow Plastics

DOWLEX* 2344E

Polyethylene Resin

Melt Index	0.7
Density	0.933

DOWLEX* 2344E Polyethylene Resin is an ethylene-octene copolymer, produced by 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 2344E Polyethylene Resin range from 190 to 230° C. The use of a reverse temperature profile may be beneficial to certain types of processing equipment. For further information, see our extrusion guideline.

Note:
DOWLEX 2344E Polyethylene Resin should comply with FDA regulation 177.1520 when used unmodified and processed according to good manufacturing practices. Please contact your nearest Dow office to obtain a detailed EU/FDA food contact compliance statement. The purchaser remains responsible for determining whether the use complies with all relevant regulations.

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 Properties[1]	Unit	Test Method	Values
Melt Index, 190° C/2.16 kg	g/10 min	ISO 1133	0.7
Melt Index, 190° C/5.0 kg	g/10 min	ISO 1133	2.2
Density	g/cm^3	ISO 1183	0.933
Vicat Softening Point	°C	ISO 306 (Method A)	122
Thermal Conductivity	W/(mK) at 60 ° C	DIN 52612 – 1	0.4
Thermal Exp. Coefficient	10^{-4} /K	DIN 53752 A (20° C to 70° C)	1.95
Mechanical Properties[1,2]	**Unit**	**Test Method**	**Values**
Hardness, Shore D		ISO 868	53
Tensile Yield[3]	MPa	ISO-527	16.5
Tensile Yield Elongation[3]	%	ISO-527	13
Ultimate Tensile[3]	MPa	ISO-527	34
Ultimate Elongation[3]	%	ISO-527	>800
Flexural Modulus	MPa	ISO-178	550
Elastic Modulus	MPa	ISO-527	580
Izod Impact	KJ/m^2 at 23° C	ISO 180	no break
	KJ/m^2 at -40° C	ISO 180	8
ESCR	h	ASTM D 1693 -B 10 % ANTAROX CO 630	>8760 (0 failures)
	h	50 % antifreeze (PEG)[4]	>8760 (0 failures)
	h	10 % corrosion inhibitor[4]	>8760 (0 failures)

(1) Typical values, not to be construed as specification limits.
(2) Compression moulded samples (2 mm thick).
(3) Crosshead speed 50 mm/min.
(4) Test according to ASTM 1693 with the listed test medium.

See "Handling Considerations" attached

Published 0400
CH 254-104-E-0400