

DuPont 20 Series DPE 20 Specialty Polyethylene Resin

Categories: [Polymer](#); [Thermoplastic](#); [Polyethylene \(PE\)](#)

Material Notes: DuPont 20 specialty low density polyethylene resin is characterized by low melt index and intermediate crystallinity. This product, produced via a unique polymerization process, has outstanding flexibility and environmental stress crack resistance.

Typical Applications: Extrusion blow molding of medical, pharmaceutical, and personal care containers; Injection and injection blow molding containers and closures; Ophthalmic, inhalant, and nasal solution containers; Low pressure air and water tubing.

Features & Benefits: Superior resistance to environmental stress cracking; High flexibility; Good heat stability; Excellent color; Odor free; Excellent chemical resistance; Good mold release performance; Nontoxic.

Information provided by DuPont Packaging Polymers.

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	0.920 g/cc	0.0332 lb/in ³	ASTM D792
Melt Flow	1.9 g/10 min @Load 2.16 kg, Temperature 190 °C	1.9 g/10 min @Load 4.76 lb, Temperature 374 °F	ASTM D1238
Mechanical Properties	Metric	English	Comments
Hardness, Shore D	49	49	ASTM D2240
Tensile Strength, Ultimate	16.1 MPa	2340 psi	ASTM D638
Tensile Strength, Yield	9.60 MPa	1390 psi	ASTM D638
Elongation at Break	600 %	600 %	ASTM D638
Modulus of Elasticity	0.186 GPa	27.0 ksi	ASTM D638
Flexural Modulus	0.157 GPa	22.8 ksi	ASTM D790
Izod Impact, Notched	NB	NB	ASTM D256
	0.430 J/cm @Temperature -40.0 °C	0.806 ft-lb/in @Temperature -40.0 °F	ASTM D256
Thermal Properties	Metric	English	Comments
Melting Point	92.0 °C	198 °F	Freezing Point via DSC/ASTM D3418
	108 °C	226 °F	Upon Melting via DSC/ASTM D3418
Deflection Temperature at 0.46 MPa (66 psi)	44.0 °C	111 °F	ASTM D648
Vicat Softening Point	94.0 °C	201 °F	ASTM D1525
Brittleness Temperature	<= -76.0 °C	<= -105 °F	ASTM D746
Optical Properties	Metric	English	Comments
Refractive Index	1.51	1.51	ASTM D542
Processing Properties	Metric	English	Comments
Processing Temperature	218 °C	424 °F	Typical Nozzle Ext. and Manifold temp for injection blow molding.
Nozzle Temperature	218 °C	424 °F	Die

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.