



DOW™ MDPE 8818

Medium Density Polyethylene Resin

Overview

MDPE 8818 is a 1-hexene copolymer medium density resin. Exhibits good processability, excellent stress cracking resistance (ESCR), impact resistant and good performance at low temperatures. The long term hydrostatic strength (LTHS) at 20°C is greater than 8 MPa, classifies as PE80 according to ISO 9080. ASTM D3350 cell classification: 235473A. Standard designation code: PE2706

Main applications include pipes for water distribution, irrigation, effluents; ducts for telecommunications; geomembranes; telephone cable shells, drop wires.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.940 g/cm ³	0.940 g/cm ³	ASTM D792
Melt Index			ASTM D1238
190°C/5.0 kg	0.74 g/10 min	0.74 g/10 min	
190°C/21.6 kg	17 g/10 min	17 g/10 min	
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
212°F (100°C), 100% Igepal, F0	> 3000 hr	> 3000 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ASTM D638
Yield	3040 psi	21.0 MPa	
Break	4790 psi	33.0 MPa	
Tensile Elongation (Break)	800 %	800 %	ASTM D638
Flexural Modulus - 2% Secant	120000 psi	827 MPa	ASTM D790
Hydrostatic Design Basis (73°F (23°C))	1250	1250	ASTM D2837
Slow Crack Growth PENT	> 1000 hr	> 1000 hr	ASTM F1473
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	11 ft-lb/in	590 J/m	ASTM D256
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Cylinder Zone 1 Temp.	329 °F	165 °C	
Cylinder Zone 2 Temp.	365 °F	185 °C	
Cylinder Zone 3 Temp.	392 °F	200 °C	
Cylinder Zone 4 Temp.	401 °F	205 °C	
Melt Temperature	392 to 410 °F	200 to 210 °C	

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

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