

DOW™ HDPE 80017

High Density Polyethylene Resin
The Dow Chemical Company

Technical Data

Product Description

HDPE 80017 is a High Density Polyethylene, copolímero of medium molecular weight, produced in the Slurry Process. This resin presents an excellent balance of properties and processability. Because of its molecular structure, this material combines a high impact resistance and Environmental Stress Cracking Resistance (ESCR), with high rigidity, suitable for the fabrication of corrugated pipes of single and double wall.

Main Characteristics:

- Corrugated pipes of single and double wall
- Pipes for drain and waste
- Complies with FDA 21 CFR 177.1520(c) 3.2a
- Consult the regulation for complete details.

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet
Search for UL Yellow Card	• The Dow Chemical Company
Availability	• Latin America
Agency Ratings	• FDA 21 CFR 177.1520(c) 3.2a
Forms	• Pellets

Physical	Nominal Value Unit	Test Method
Specific Gravity	0.956 g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR)		ASTM D1238
190°C/2.16 kg	0.29 g/10 min	
190°C/21.6 kg	27 g/10 min	
Environmental Stress-Cracking Resistance		ASTM D1693
50°C, 100% Igepal, Compression Molded, F50	> 250 hr	

Mechanical	Nominal Value Unit	Test Method
Tensile Strength		ASTM D638
Yield, Compression Molded	30.0 MPa	
Break, Compression Molded	35.0 MPa	
Tensile Elongation		ASTM D638
Break, Compression Molded	950 %	
Flexural Modulus - 2% Secant (Compression Molded)	580 MPa	ASTM D790

Impact	Nominal Value Unit	Test Method
Notched Izod Impact (Compression Molded)	37 J/m	ASTM D256

Hardness	Nominal Value Unit	Test Method
Durometer Hardness		ASTM D2240
Shore D, Compression Molded	65	

Thermal	Nominal Value Unit	Test Method
Oxidation Induction Time (200°C)	> 20 min	ASTM D3895

Extrusion	Nominal Value Unit
Cylinder Zone 1 Temp.	190 °C
Cylinder Zone 3 Temp.	195 °C
Cylinder Zone 5 Temp.	200 °C

Extrusion Notes

Recommended Processing Conditions:

- Temperature of Extrusion: 190°C - 195°C - 200 °C
- Temperature of the mold: 205°C