



DOW™ LDPE 91020 HEALTH+™

Low Density Polyethylene Resin

Overview

DOW™ LDPE 91020 HEALTH+™ is a Low Density Polyethylene barefoot resin designed for blow-fill-seal, extrusion blow molding, and injection blow molding applications with good flexibility and good chemical resistance. It is also suitable for medical packaging films.

Main Characteristics:

- Good flexibility
- Good chemical resistance
- Good stiffness

Complies with:

- U.S. FDA 21 CFR 177.1520(c)2.2
- USP Class VI
- Drug Master File Listing
- USP <661.1>
- European Pharmacopeia 3.1.3 and 3.1.4

Consult the regulations for complete details.

Additive

- Antiblock: No
- Slip: No
- Processing Aid: No

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.923 g/cm ³	0.923 g/cm ³	ASTM D792
Melt Index (190°C/2.16 kg)	2.0 g/10 min	2.0 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	2.0 mil	50 µm	
Tensile Strength			ASTM D882
MD : Yield, 2.0 mil (50 µm)	1490 psi	10.3 MPa	
TD : Yield, 2.0 mil (50 µm)	1770 psi	12.2 MPa	
MD : Break, 2.0 mil (50 µm)	3030 psi	20.9 MPa	
TD : Break, 2.0 mil (50 µm)	2630 psi	18.1 MPa	
Tensile Elongation			ASTM D882
MD : Break, 2.0 mil (50 µm)	400 %	400 %	
TD : Break, 2.0 mil (50 µm)	550 %	550 %	
Dart Drop Impact (2.0 mil (50 µm))	110 g	110 g	ASTM D1709A
Elmendorf Tear Strength			ASTM D1922
MD : 2.0 mil (50 µm)	430 g	430 g	
TD : 2.0 mil (50 µm)	370 g	370 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	210 °F	99.0 °C	ASTM D1525
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (20°, 1.97 mil (50.0 µm))	66	66	ASTM D2457
Haze (1.97 mil (50.0 µm))	7.50 %	7.50 %	ASTM D1003
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Melt Temperature	379 °F	193 °C	

Extrusion Notes

Fabrication Conditions For Blown Film:

- Melt Temperature: 193°C
- Blow-Up Ratio: 1 to 2.5

