

## Dow DOWLEX™ IP-42 High Density Polyethylene

Category : Polymer , Thermoplastic , Polyethylene (PE) , HDPE , High Density Polyethylene (HDPE), Impact Grade

### Material Notes:

DOWLEX® IP-42 resin is an improved processing high density polyethylene resin designed for excellent flow and high impact. DOWLEX IP-42 resin is designed by optimizing the breadth and shape of the molecular weight distribution and peak molecular weight with a slightly lower density for increased impact strength. Typical applications are housewares, ice cream and promo applications. This material complies with FDA regulation 21 CFR 177.1520 (c) 3.1 for food contact applications. The regulation should be consulted for complete details. Data provided by Dow Chemical.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Dow-DOWLEX-IP-42-High-Density-Polyethylene.php](http://www.lookpolymers.com/polymer_Dow-DOWLEX-IP-42-High-Density-Polyethylene.php)

Physical Properties	Metric	English	Comments
Density	0.948 g/cc	0.0342 lb/in <sup>3</sup>	
Viscosity	47000 cP	47000 cP	Apparent Dynamic Viscosity
	@Shear Rate 5000 1/s, Temperature 190 °C	@Shear Rate 5000 1/s, Temperature 374 °F	
	87000 cP	87000 cP	
Melt Flow	@Shear Rate 1000 1/s, Temperature 190 °C	@Shear Rate 1000 1/s, Temperature 374 °F	Apparent Dynamic Viscosity
	132000 cP	132000 cP	
	@Shear Rate 300 1/s, Temperature 190 °C	@Shear Rate 300 1/s, Temperature 374 °F	
Melt Flow	42 g/10 min	42 g/10 min	Melt flow ratio I10/I2 is 8.5.
	@Load 2.16 kg	@Load 4.76 lb	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	10.0 MPa	1450 psi	
Tensile Strength, Yield	19.0 MPa	2760 psi	
Elongation at Break	300 %	300 %	
Modulus of Elasticity	0.565 GPa	81.9 ksi	Molded Sample 2% Secant Modulus
Flexural Modulus	0.834 GPa	121 ksi	
Izod Impact Resistance	2.90 J/cm <sup>2</sup>	13.8 ft-lb/in <sup>2</sup>	

Thermal Properties	Metric	English	Comments
Vicat Softening Point	118 °C	244 °F	

Thermal Properties

Metric

English

Comments

## Contact Songhan Plastic Technology Co.,Ltd.

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