LAPOLENE

Product Data Sheet

Polyethylene

HD800-U

Material Properties

Resin Property	ASTM Test Method	Unit	Typical Value
Melt Index, 190 °C, 2.16 kg	D 1238	g/10 min	7.9
Spiral Flow[1]		in	8.6
Density	D 1505	g/cc	0.960
Bulk Density	D 1895	lb/ft^3	37-39
Molded Properties			
Tensile Strength, Yield	D 638	psi (MPa)	4,250 (29.3)
Tensile Stress, Break	D 638	psi (MPa)	2,300 (15.9)
Elongation, Break	D 638	%	380
Flexural Modulus, 1% Secant	D 790	psi (MPa)	190,200 (1,310)
Izod Impact, 23 °C	D 256	ft-lbs/in	1.4
Unnotched Impact, -18 °C	D 4812		No Break
Vicat Softening Point	D 1525		70
Hardness, Shore D	D 648	°F	70
Low Temperature Brittleness, F_{50}[2]	D 746	°F	<-105 °F
Thermal Properties			
Melting Temperature	D 3418	°F	270.9
Crystallization Temperature	D 3418	°F	240.6
Molded Properties			
Flexural Modulus, 2% Secant (12.5 mm/min)	D 790	psi (MPa)	155,400 (1,020)
Flexural Young's Modulus (12.5 mm/min)	D 790	psi (MPa)	205,100 (1,410)
Tensile Modulus, 1% Secant (50 mm/min, Type I)	D 638	psi (MPa)	122,600 (845)
Tensile Young's Modulus (50 mm/min, Type I)	D 638	psi (MPa)	146,400 (1,020)

[1] Measures the number of inches of flow produced when molten resin is injected into a long, spiral channel (0.0625" insert), at a constant injection pressure of 1000 psi with a melt temperature of 440°F.
[2] Data are for control and development work and not intended for use in design or predicting performance at elevated or sub-ambient temperatures.

Applications

- HD800-U is a narow molecular weight distribution homopolymer that exhibits enhanced flow characteristics and good balance of stiffness and impact resistance.
- Typical applications for HD800-U include cases, tote bins, crates and trays and open-head pails.
- HD800-U meets the requirements of the Food and Drug Administration, 21 CFR Section 177.1520. This regulation allows the use of this olefin polymer in "...articles or components of articles intended for use in contact with food." Specific limitations may apply. Contact your LAP sales representative for more information.
- HD800-U contains UV stabilizer for use in applications with exposure to sunlight.
- Specific recommendations for processing HD800-U can only be made when the processing conditions, equipment and end use of the application are known. For further information please contact your LAP sales representative.

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