Technical Data Sheet

Lupolen 1800U

Low Density Polyethylene

Product Description

Lupolen 1800U is a low density polyethylene resin used in various processing methods such as injection molding and compounding. It exhibits very high flowability and a very good balance of softness and toughness, dimensional stability and good processing. *Lupolen* 1800U is delivered in pellet form and is not additivated. It is used in a wide range of injection molding applications such as thin-wall packaging (TWIM) and housewares. *Lupolen* 1800U is also used in the area of compounding for color and additive batches and as a viscosity modifier. Customers have reported that the high melt flow rate (MFR) of *Lupolen* 1800U enables very good dispersion and homogenization at high loads with pigments and additives.

Lupolen 1800U is not intended for use in medical and pharmaceutical applications.

Application	Caps & Closures; Colour Concentrates; Housewares; Sports, Leisure & Toys
Market	Consumer Products; Rigid Packaging
Processing Method	Compounding; Injection Molding
Attribute	Fast Cycle (Production); Good Flexibility; Good Processability; Low Density; Low Temperature Impact Resistance

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (190 °C/2.16 kg)	65	g/10 min	ISO 1133-1
Density	0.918	g/cm³	ISO 1183-1
Mechanical			
Tensile Modulus	180	MPa	ISO 527-1, -2
Tensile Stress at Yield	8	MPa	ISO 527-1, -2
Tensile Elongation at Break	85	%	ISO 8986-2
Environmental Stress Crack Resistance, F_{50}	1	hr	ASTM D1693
Note: Cond. B, 10% Arkopal N100			
Hardness			
Shore Hardness, (Shore D)	45		ISO 868
Thermal			
Vicat Softening Temperature, (A/50)	74	°C	ISO 306
Peak Melting Point	105	°C	ISO 11357-3
Processing Parameters			
Melt Temperature	180 - 230	°C	