LDPE
Low Density Polyethylene

Description A semi crystalline material with milky white base colour and waxy feel. Excellent impact resistance, semi flexible soft material chemical resistance and electrical insulation are excellent.	
Typical Applications Caps, lids, containers, pipe couplings, fenders flexible lids	
Types of grade available Injection moulding Extrusion Blow moulding	
General Processing	
Drying Time	N/A
Drying Temperature	N/A
Type of Drier	N/A
Purging	DYNAPURGE D2 / K OR F
Moisture Absorption	<0.2%
Other Considerations	Organic dies should not be used for colouring due to leaching
Processing Injection Moulding	
Barrel Settings	150C to 250C
Injection speed	Fast for mouldings with high surface gloss
Injection Pressure	High
Back Pressure	Low
Screw Speed	Medium
Tool Temperature	30C
Melt Temperature	180C to 280C
Processing Stability	Residence time should not exceed 5 to 6 minutes
Gate Considerations	All types of gate are used
Sprue & Runner Considerations	No special requirements
Processing Extrusion	
Barrel Settings	170C to 200C
Screw Speed	50 – 80 rpm
Screen Packs	80 mesh

Haul-off / Cooling	Water bath chilled 10c
Calibration	Suitable for use with a vacuum calibrator or sizing plates.
Mechanical Properties	
Shrinkages	2% to 3%
Flexural Modulus	.125 -.759 GPa
Tensile strength at Yield	7 -24 MPa
Physical Properties	
Density	0.917
Cold Bend	
Cold Flex	
Elongation at Break	500%
Tensile Modulus	.140 -.350 GPa
General Impact Strength	Good
Material Finish	Mat and wax like
Thermal Properties	
Vicat Softening Temperature	85C
Heat Deflection Temperature	50c
Flammability	
Flammability Rating	Not flame retardant
Weatherability	
Suitability for outdoor use	LDPE has poor UV stability unless modified with Carbon black and UV stabiliser
Fillers & Additives	Carbon Black, graphite
Chemical Resistance	
Resistant to	Dilute and concentrated acids, alcohols & esters
Not resistant to	Aliphatic and aromatic hydrocarbons
Food Contact Status	Suitable for food contact
Colouring	As the natural colour is off-white then a wide colour range is possible; this does not include transparent colours. Can be coloured by techniques such as masterbatch, dry colouring and liquid colouring. When dry colouring, adhesion promoters such as paraffin can be used

REACH & ROHS Compliance	Contains no hazardous substances
Bonding	The material may not be joined to itself using solvents as there is no solvent at room temperature. Because of its inert, "non-stick" surface it also cannot be very successfully bonded using adhesives; limited success with contact or hot melt adhesives.
Welding	Welding methods such as hot plate or shoe are often preferred. When welding LDPE it is usual to coat or cover the hot plates with PTFE so as to prevent the material sticking to the surfaces of the hot plate

This information has been provided as a general guide and we suggest that you carry out your own specific tests to be sure that this material is suitable for your application.