



## POLYETHYLENE (PE) - Grades & Applications

Reliance Polymers offers the entire range of Polyethylene (PE) viz. High Density Polyethylene (HDPE), Linear Low Density Polyethylene (LLDPE) and Low Density Polyethylene (LDPE) manufactured by state-of-the-art technologies available worldwide. Both HDPE & LLDPE are available in a wide range of MFI & density for a broad spectrum of applications. HDPE grades are specially designed to meet demanding applications like high-pressure pipes, telecom ducts, carrier bags, woven sacks, injection and blow moulded products.

Octene & butene grade LLDPE from Reliance are used extensively in specialty films, milk & edible oil packaging, lamination films, cast films, stretch films and other applications like rotational moulding and injection moulded products. LDPE finds extensive use in heavy-duty films, lamination films, extrusion coating & moulding applications.

### HIGH DENSITY POLYETHYLENE GRADES (HDPE)

Grade	MFI g/10 min	Density g/cc	Typical Applications
<b>ORIENTED STRUCTURES</b>			
E 52009	0.90	0.952	Oriented tapes, Woven sacks, Monofilaments
EE20	1.45	0.952	Wrapping fabrics, Oriented tapes
HD53EA010	1.00	0.955	Oriented tapes, Woven sacks
HD55EF010	1.00	0.955	Monofilaments
<b>PIPES</b>			
46GP003	0.30**	0.946	PE-100 pressure pipes
45GP004	0.45**	0.945	PE-80 pressure pipes
46GP009	0.90**	0.946	PE-63 pressure pipes, Ducts, Non-pressure pipes
46GP009UV	0.90**	0.946	Ducts for optical fibre cables
D16501	0.30	0.948	Ducts for optical fibre cables
<b>FILM EXTRUSION</b>			
F 46003	0.30	0.946	Liners, Co-extrusion
F 56003	0.30	0.956	Carrier bags, Co-extrusion
50GF003	0.30**	0.950	High gloss film for Carrier bags, Counter bags
52GF004	0.45**	0.952	High gloss paper-like film for Liners & Over wraps
<b>WIRE &amp; CABLE</b>			
S 42005	0.55	0.942	Base resin for sheathing/jacketing of PIJF cables & Jacketing of optical fibre cables
<b>INJECTION MOULDING</b>			
HD53MA020	2.0	0.953	Caps & Closures
M 60075	8.0	0.960	Crates, Luggage & Industrial containers
L 60075	8.0	0.960	U. V. Stabilised grade for Crates, Paint pails, Defence applications
HD50MA180	20.0	0.950	Housewares, Storage bins, Thin wall moulding
M 60200	20.0	0.958	Housewares, Storage bins
<b>BLOW MOULDING</b>			
B 56003	0.30	0.956	Oil, Vanaspati & General purpose containers, Jerry cans
54GB012	1.20**	0.954	Containers up to 10 L for Edible oil, Cosmetic & Personal care products
46GB012	1.20**	0.946	Containers up to 10 L for Pesticides, Cosmetic & Personal care products
52GB010	1.20**	0.952	Upto 20 L Containers for Lube oil, Edible oil & Adhesives, General purpose blow moulding

Grade	MFI g/10 min	Density g/cc	Typical Applications
52GB003	0.45**	0.952	Medium volume containers, Liners, Sheets
52GB002	0.25**	0.952	Containers above 100 L
52GB001	0.10**	0.952	Large containers up to 240 L
<b>LINEAR LOW DENSITY POLYETHYLENE GRADES (LLDPE)</b>			
<b>FILM EXTRUSION</b>			
O 19010	0.9	0.918	Slip, Anti-block grade for specialty film, Liquid packaging
O 21010	0.9	0.918	Specialty lamination film
F 19010	0.9	0.918	Slip, Anti-block grade for heavy duty film, Liquid packaging
F 18010	0.9	0.918	Lamination film
LL20FS010	1.0	0.920	Slip, Anti-block grade for heavy duty film, Liquid packaging
LL20FA010	1.0	0.920	Lamination film
F 22020	1.7	0.918	Slip, Anti-block grade for general purpose film blending
LL20FS020	2.0	0.920	Slip, Anti-block grade for general purpose film blending, Carrier bags
F 18020	2.0	0.918	Lamination film/Cast film, Stretch film
LL20FA020	2.0	0.920	
LL24FA030	3.0	0.924	XLPE compounds for Wire & Cable
LL20DS010	1.2	0.920	Drip laterals, General purpose packaging
<b>EXTRUSION COATING</b>			
E 24065	6.5	0.924	Coating on Woven fabrics, Paper, Aluminium foil
<b>INJECTION MOULDING</b>			
M 24300	30	0.924	Masterbatches, Shopping baskets, Lids
M 26500	50	0.926	Masterbatches, Shopping baskets, Lids, Hot-melt adhesives, Powder coating
<b>ROTATIONAL MOULDING</b>			
O 35042	4.2	0.935	Chemical storage, Septic & General purpose tanks
R 35042	4.2	0.935	Overhead water tank, Loft tank
LL36RA045	4.5	0.936	Overhead water tank, Loft tank, Litter bin, etc.
LL36RA045UV	4.5	0.936	UV stabilised grade for products requiring outdoor exposure
<b>LOW DENSITY POLYETHYLENE GRADES (LDPE)</b>			
<b>FILM EXTRUSION</b>			
22FA002	0.2	0.920	Heavy duty bags, Shrink film, Canal lining, Greenhouse film
1003FA20	0.3	0.920	Heavy duty/Shrink film, UV film, W&C compound, Agri-film
1005FY20	0.5	0.920	Medium slip grade for mono & co-extruded film for liquid packaging
1020FA20	2.0	0.920	Adhesive lamination film, Foam film
1035FS20	3.5	0.920	High slip grade nursery bags, General purpose packaging film, Negative BUR film
24FS040	4.0	0.922	High slip grade for shopping bags, General purpose packaging
<b>EXTRUSION COATING</b>			
1070LA17	7.0	0.917	Extrusion coating, Heat & Pressure lamination film
<b>INJECTION MOULDING</b>			
16MA400	30.0	0.918	Masterbatches, Powder coating, Soft mouldings
Note: MFI (2.16 kg) g/10 min ASTM D1238, ** MFI (5kg) g/10 min			



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