



Relene 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 and 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 and Butene grade LLDPE from Reliance are used extensively in specialty films, milk and 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 and moulding applications.

High Density Polyethylene Grades (HDPE)

| Grade | MFI (g/10 Min) | Density (g/cc) | Typical End use |
|--|----------------|----------------|---|
| Oriented Structures | | | |
| E52009 | 0.90 | 0.952 | Woven Sacks for Fertilizers, Food Grains etc |
| HD53EA010 | 1.00 | 0.955 | Low Denier Fabric for wrapping, Woven sacks |
| HD55EF010 | 1.00 | 0.955 | Monofilaments for Mosquito nets, Fishing nets |
| EE20 | 1.45 | 0.945 | General Purpose Raffia Fabric, Molding of small parts etc |
| Blown Film / Blow Molding | | | |
| F46003 / F4600 | 0.35 | 0.948 | Coextrusion, Liners, Blow Molding < 5Ltrs. Good ESCR, Lamitubes / Shoulder |
| F46003E | 1.10 | 0.950 | Used in blends for carry bags for various food and non-food packaging applications. |
| F60003 | 0.60 | 0.960 | Used in blends in blown, coextruded, oriented films for MDO applications |
| Blow Molding | | | |
| B56003 / B5502 | 0.35 | 0.956 | Coextrusion, CoEx for Lamitubes, Blow Molding upto 20 Ltrs. Good ESCR |
| 54GB012 | 1.20** | 0.954 | Blow Molding upto 20 Ltrs. Good ESCR |
| 52GB003 | 0.45** | 0.952 | Medium Blow Molding Containers, Corrugated Pipes etc. Good ESCR |
| 52GB002 | 0.25** | 0.952 | Blow Molding containers ~ 100 Lts |
| B5010 | 0.65** | 0.952 | Blow Molding containers ~ 100 Lts |
| Pipes & Ducts | | | |
| 46GP003 | 0.30** | 0.948 | Pressure Pipes with PE100 rating |
| 45GP004 | 0.45** | 0.948 | Pressure Pipes with PE80 rating |
| 46GP009 | 0.90** | 0.948 | Pressure Pipes @ PE63 |
| 46GP009UV | 0.90** | 0.948 | Telecom Ducts for OFC |
| P4609 | 0.90** | 0.948 | Pipe Extrusion |
| P15807 | 1.20** | 0.948 | Telecom Ducts for OFC |
| E41003 | 1.20** | 0.948 | General purpose Pipes & Ducts. |
| Injection Molding | | | |
| M60075 | 8.0 | 0.960 | Crates, Luggage & Other Rigid IM |
| L60075 | 8.0 | 0.960 | Crates, Luggage & Other Rigid IM. UV Stabilized |
| HD50MA180 | 20.0 | 0.952 | Houseware. Storage Bins & Thin wall moulding |
| Extrusion | | | |
| S42005 | 0.55 | 0.946 | General purpose blending applications. |
| S46005 | 0.50 | 0.948 | Sheathing/jacketing of optical fiber cables. |
| Injection Molding & Extrusion Compression Molding | | | |
| 54GC016 | 1.60 | 0.954 | Caps & Closures. |

Linear Low Density Polyethylene Grades (LLDPE)

Blown & Cast Film Applications

| | | | |
|------------------|------|-------|--|
| O19010 | 1.00 | 0.918 | C8 LL for Heavy Duty applications Blown Film with Slip & AB |
| O21010 | 1.00 | 0.918 | C8 LL for Heavy Duty applications Blown Film without Slip & AB |
| O18030 | 3.00 | 0.920 | C8 LL for High Speed Cast film application without slip and AB |
| F19010 / JF19010 | 1.00 | 0.918 | C4 LL for Blown Film applications with Slip & AB |
| F18010 / JF18010 | 1.00 | 0.918 | C4 LL for Blown Film applications without Slip & AB |
| E19010 | 1.00 | 0.918 | C4 LL for Blown Film applications |
| F22020 / JF19020 | 2.00 | 0.918 | C4 LL for Blown Film application with Slip & AB |
| F18020 / JF18020 | 2.00 | 0.918 | C4 LL for Blown & Cast Film application without Slip & AB |
| F17030 | 3.00 | 0.918 | C4 LL for High Speed Cast film application without slip and AB |

Drip Lateral Tubing

| | | | |
|---------|------|-------|-------------------------------------|
| JD22010 | 1.10 | 0.922 | C4 LL for Drip Lateral Applications |
| JD19010 | 1.40 | 0.920 | C4 LL for Drip Lateral Applications |

| Grade | MFI (g/10 Min) | Density (g/cc) | Typical End use |
|--|----------------|----------------|--|
| Roto Molding & Other Rigid Applications | | | |
| LL36RA045 / JLL36RA045 # #: UV Version Available | 4.50 | 0.936 | C4 LL Overhead & Loft Tanks & Bins etc |
| Power Cable Base Resin | | | |
| X24065 | 6.50 | 0.924 | Base Resin for XLPE Compounds |
| JLL24FA030 | 3.00 | 0.924 | Medium Voltage XLPE compounds. |
| Extrusion | | | |
| E24065 | 7.00 | 0.924 | LL Extrusion Coating in blends with LDPE |
| Injection Molding, Base resin @ Masterbatches/compounds | | | |
| M24200 | 20.00 | 0.924 | Lids, Base resin for Masterbatches |
| M24300 | 30.00 | 0.924 | Lids, Base resin for Masterbatches |
| M26500 | 50.00 | 0.926 | Lids, TWIM & Base resin for Masterbatches |
| Low Density Polyethylene Grades (LDPE) | | | |
| Blown, Cast Films, Thermal Lamination | | | |
| 22FA002 / J22FA002E | 0.20 | 0.920 | Heavy Duty Bags, Canal Lining, Green house films |
| 1005FY20 / J1005FY20/J1005FS20 | 0.60 | 0.920 | Heavy Duty Liquid Packaging Application |
| 24FS040/J24FS040 | 4.00 | 0.924 | General Purpose Film Applications |
| 24FA040/J24FA040 | 4.00 | 0.924 | Non Slip Grade for General Purpose Lamination |
| 1020FA20/J1020FA20/J1020FF20 | 2.00 | 0.920 | Adhesive Lamination, Foam Film |
| J1007FA20 | 0.70 | 0.923 | Film, Foam |
| J1020XA20 | 2.00 | 0.918 | Medium Voltage cable insulation. |
| Extrusion Coating | | | |
| 1070LA17 | 7.00 | 0.917 | Extrusion, Heat & Pressure applications |
| Injection Molding | | | |
| 16MA400 | 30.00 | 0.920 | Master batches, Injection Molding |

Note: MFI (2.16 kg) g/10 min ASTM D1238, Note:**MFI (5kg) g/10 min

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