

Polyethylene (PE)

For Plastic Fuel Tank Systems / SCR Reservoir Systems

| Properties | Physical | | | Mechanical | | | | Others | | Conversion | | | Specific Characteristics | Typical Customer Applications | |
|---|-------------------|-------------------------|-------------------------|--------------------|-------------------------------|-----------------------------------|---|---|--|------------------|----|----|--------------------------|---|---|
| | Density 23°C | MFR 190°C 21.6 kg | MFR 190°C 2.16 kg | Tensile Modulus | Tensile Stress at Yield | Tensile Elongation at Yield | Tensile impact strength notched -30°C | ESCR (FNCT: 3.5 MPa, 80°C, 2% Igepal BC/9) | ESCR (FNCT: 6.0 MPa, 50°C, 2% Arkopal N100) | Delivery Form | BM | TF | | | IM |
| TEST METHOD | ISO 1183 | ISO 1133 | | ISO 527 | | | ISO 8256/1A | ISO 16770 | | | | | | Lupolen grades exhibit very good Environmental Stress Crack Resistance (ESCR), good chemical resistance in combination with very good cold impact resistance | |
| UNITS | g/cm ³ | g/10 min | | MPa | MPa | % | kJ/m ² | h | | | | | | | |
| HIGH DENSITY POLYETHYLENE (HDPE) | | | | | | | | | | | | | | | |
| Lupolen 4261 AG | 0.945 | 6 | – | 900 | 24 | 10 | 170 | 80 | – | Pellet | x | x | | Benchmark HDPE grade for blow molded or thermoformed fuel tank systems | Blow molded mono- or multi-layer fuel tanks; Thermoformed mono- or multi-layer fuel tanks; Blow molded SCR reservoirs |
| Lupolen 4261 AG BD | 0.945 | 6 | – | 900 | 24 | 10 | 170 | 80 | – | Pellet | x | x | | "Biodiesel" version of Lupolen 4261 AG with improved resistance against harmful effects of biodiesel and dirty fuels (gasoline containing peroxides); the product offers as well a higher efficiency for off-line fluorination and a significant higher UV resistance | Blow molded mono- or multi-layer fuel tanks; Thermoformed mono- or multi-layer fuel tanks; Blow molded SCR reservoirs for trucks when exposed to sunlight |
| Lupolen 4261 A Q135 | 0.945 | 6 | – | 900 | 24 | 10 | 170 | 80 | – | Powder | x | | | Lupolen 4261 A Q135 is a powder grade for fuel tank systems. The grade could be mixed with regrind to increase the throughput effectively | Blow molded mono-layer fuel tanks |
| Lupolen 4261 A IM | 0.940 | 15 | – | 800 | 21 | 10 | 140 | 35 | – | Pellet | | | x | Lupolen 4261 A IM is based on Lupolen 4261 AG polymer chemistry and exhibits higher fluidity | Injection molded fuel tank components |
| Lupolen 4261 A IM BD | 0.940 | 15 | – | 800 | 21 | 10 | 140 | 35 | – | Pellet | | | x | "Biodiesel" version of Lupolen 4261 A IM with improved resistance against harmful effects of biodiesel and dirty fuels (gasoline containing peroxides); the product offers as well higher efficiency for off-line fluorination and significantly higher UV resistance | Injection molded fuel tank components |
| Lupolen GX 5038 | 0.945 | – | 2 | 900 | 22 | 10 | 100 | – | 35 | Pellet | | | x | Benchmark grade for injection molded SCR reservoirs | Injection molded SCR reservoirs; Components for SCR reservoirs and fuel tanks |
| Hostalen GM9350C Black | 0.995 | 3 | – | 1,200 | 28 | 7 | 45 | 90 | – | Pellet | x | | x | Hostalen GM9350C Black is a compound based on Lupolen 4261 AG polymer chemistry comprising electrically conductive properties | Filler pipes for fuel tank systems |
| Lupolen 4261 A SW63200 | 1.05 | 4 | – | – | – | – | – | – | – | Pellet | x | x | x | Lupolen 4261 A SW63200 is a black masterbatch based on Lupolen 4261 AG polymer chemistry with enhanced UV protection | Masterbatch for blow molded mono- or multi-layer fuel tanks; Masterbatch for blow molded SCR reservoirs |

ESCR = Environmental Stress Crack Resistance; FNCT = Full Notch Creep Test; BM = Blow Molding; TF = Thermoforming; IM = Injection Molding; SCR = Selective Catalytic Reduction

You can find out more about us by visiting our website at: www.lyb.com

Before using a product sold by a company of the LyondellBasell family of companies, users should make their own independent determination that the product is suitable for the intended use and can be used safely and legally. SELLER MAKES NO WARRANTY; EXPRESS OR IMPLIED (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY WARRANTY) OTHER THAN AS SEPARATELY AGREED TO BY THE PARTIES IN A CONTRACT. This product(s) may not be used in: (i) any U.S. FDA Class I, Health Canada Class I, and/or European Union Class I Medical Devices, without prior notification to Seller for each specific product and application; or (ii) the manufacture of any of the following, without prior written approval by Seller for each specific product and application: (1) U.S. FDA Class II, Health Canada Class II or Class III, and/or European Union Class II Medical Devices; (2) film, overwrap and/or product packaging that is considered a part or component of one of the aforementioned Medical Devices; (3) packaging in direct contact with a pharmaceutical active ingredient and/or dosage form that is intended for inhalation, injection, intravenous, nasal, ophthalmic (eye), digestive, or topical (skin) administration; (4) tobacco related products and applications; (5) electronic cigarettes and similar devices; and (6) pressure pipe or fittings that are considered a part or component of a nuclear reactor. (iii) Additionally, the product(s) may not be used in: (1) U.S. FDA Class III, Health Canada Class IV, and/or European Class III Medical Devices; (2) applications involving permanent implantation into the body; (3) life-sustaining medical applications; and (4) lead, asbestos or MTBE related applications. All references to U.S. FDA, Health Canada, and European Union regulations include another country's equivalent regulatory classification. Users should review the applicable Material Safety Data Sheet before handling the product.

Polyethylene (PE)

For Plastic Fuel Tank Systems / SCR Reservoir Systems (Rotational Molding)

| Properties | Physical | | Mechanical | | | | Others | | Specific Characteristics | Typical Customer Application |
|---|-------------------|-------------------------|--------------------|-------------------------------|-----------------------------------|---|---|------------------|--|--|
| | Density 23°C | MFR 190°C 2.16 kg | Tensile Modulus | Tensile Stress at Yield | Tensile Elongation at Yield | Tensile impact strength notched -30°C | ESCR (FNCT: 6 MPa, 50°C, 2% Arkopal N 100) | Delivery Form | Lupolen rotational molding grades exhibit very good Environmental Stress Crack Resistance (ESCR), good chemical resistance in combination with very good cold impact resistance and comprise UV additivation | |
| TEST METHOD | ISO 1183 | ISO 1133 | ISO 527 | | | ISO 8256/1A | ISO 16770 | | | |
| UNITS | g/cm ³ | g/10 min | MPa | MPa | % | kJ/m ² | h | | | |
| MEDIUM DENSITY POLYETHYLENE (MDPE) | | | | | | | | | | |
| Lupolen 3621 M RM | 0.9355 | 7.5 | 700 | 17 | 10 | 145 | 15 | Pellet | Lupolen 3621 M RM offers high fluidity and high impact strength | Rotational molded fuel tanks Rotational molded SCR reservoirs |
| Lupolen 4021 K RM | 0.9395 | 4.0 | 750 | 19 | 9 | 120 | 50 | Pellet | Lupolen 4021 K RM offers high Environmental Stress Crack Resistance (ESCR) and high stiffness | Rotational molded fuel tanks Rotational molded SCR reservoirs |

ESCR = Environmental Stress Crack Resistance; FNCT = Full Notch Creep Test; SCR = Selective Catalytic Reduction

You can find out more about us by visiting our website at: www.lyb.com

Before using a product sold by a company of the LyondellBasell family of companies, users should make their own independent determination that the product is suitable for the intended use and can be used safely and legally. SELLER MAKES NO WARRANTY; EXPRESS OR IMPLIED (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY WARRANTY) OTHER THAN AS SEPARATELY AGREED TO BY THE PARTIES IN A CONTRACT. This product(s) may not be used in: (i) any U.S. FDA Class I, Health Canada Class I, and/or European Union Class I Medical Devices, without prior notification to Seller for each specific product and application; or (ii) the manufacture of any of the following, without prior written approval by Seller for each specific product and application: (1) U.S. FDA Class II, Health Canada Class II or Class III, and/or European Union Class II Medical Devices; (2) film, overwrap and/or product packaging that is considered a part or component of one of the aforementioned Medical Devices; (3) packaging in direct contact with a pharmaceutical active ingredient and/or dosage form that is intended for inhalation, injection, intravenous, nasal, ophthalmic (eye), digestive, or topical (skin) administration; (4) tobacco related products and applications; (5) electronic cigarettes and similar devices; and (6) pressure pipe or fittings that are considered a part or component of a nuclear reactor. (iii) Additionally, the product(s) may not be used in: (1) U.S. FDA Class III, Health Canada Class IV, and/or European Class III Medical Devices; (2) applications involving permanent implantation into the body; (3) life-sustaining medical applications; and (4) lead, asbestos or MTBE related applications. All references to U.S. FDA, Health Canada, and European Union regulations include another country's equivalent regulatory classification. Users should review the applicable Material Safety Data Sheet before handling the product.