

Icorene 1480 - HDPE grade, designed for rotomolding tank applications

Offers excellent ESCR, impact resistance, and faster processing for energy savings



Icorene 1480 is a new generation hexene high density polyethylene (HDPE) developed by LYB. This unique melt flow 6 grade offers excellent ESCR (Environmental Stress Crack Resistance), can be processed at very short cycle times while maintaining properties, such as low temperature impact strength.

Icorene 1480UV contains a world-class AO and UV20 protection package, making it suitable for use in long-term outdoor applications, such as tanks with high wall thickness. This material has a higher-than-normal melt flow rate of 6, enabling it to process faster. As a result, customers benefit from cycle time and energy savings, thereby lowering the products' carbon footprint. With superior levels of cold impact resistance, it is ideal for applications requiring rigidity and incredible toughness, such as fish bins, kayaks, and boats.

Features

- Hexene material with high ESCR
- Very wide processing window while maintaining mechanical properties
- Good surface finish and insert coverage
- Capable of processing to low PIAT, potentially reducing CO2 emissions
- High impact resistance at -40°C
- Good long-term creep resistance
- Excellent UV20 and process heat-stabilization
- Available in color compounds, natural and black

Typical applications

- Tanks above and below ground
- Waste water and septic tanks
- Big spray tanks
- Boats and kayaks
- Fish bins
- Rigid bin lids and pallets

Comparison with our traditional Tank Grade Icorene 1314 NAT

Properties	Physical		Mechanical								Thermal		
	Density	Melt Flow Rate	Environmental Stress Crack Resistance		Tensile Modulus*	Tensile Stress at Yield*	Tensile Elongation at Break*	Flexural Modulus*	Impact Strength (ductility)*		Charpy Notched*	Deflection Temperature Under Load *	Melting Temperature
Conditions	Compression molded	(190 °C/ 2.16 kg)	(Condition B, F50, 10% Igepal, 50 °C)	(Condition B, F50, 100% Igepal, 50 °C)		(23 °C, Type I)	(23 °C)	(23 °C)	(-40 °C, 3.20 mm, Rotational Molded)		(-30 °C, 4 mm, Rotational Molded)	Unannealed (0.45 MPa)	
Test Method	ISO 1183	ISO 1133	ASTM D1693	ASTM D1693	ISO 527	ISO 527	ISO 527	ISO 527	ARM PIAT 150C	ARM PIAT 190C	ISO 179-1/1eA	ISO 75-2/B	DSC
Units	g/cm³	g/10min	hr	hr	MPa	MPa	%	MPa	J		kJ/m²	°C	°C
Icorene 1314	0.939	3	>300	>1000	730	19	380	815	43 (0%)	56 (70%)	5.5	62	127
Icorene 1480	0.940	6	>1000	>1000	760	18	380	790	65 (100%)	78 (100%)	6.1	70	127

*Icorene 1480 test values rotomolded at 3.2mm or 4mm PIAT 150°C whereas Icorene 1314 test values rotomolded at 3.2mm or 4mm PIAT 190°C

About us

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