

Technical Data Sheet

icorene 1614-3442G BLACK



Polyethylene, Linear Medium Density

Product Description

icorene 1614 is a hexene linear medium density polyethylene specifically developed for use in rotational molding. This grade is designed for applications requiring good processability, stiffness and toughness. This product is particularly suitable for the production of diesel fuel tanks. *icorene* 1614 is TUV ECE R34 approved, protocol no: 185XS0148-00.

Processing Method	Rotomolding
Attribute	Good ESCR (Environmental Stress Cracking Resistance); Good Processability; Good Stiffness; Good Toughness; UV Resistant
Forms	Powder
Appearance	Black
Additive	UV Stabilizer
Application	Agricultural Tanks; Heavy Transportation; Lawn & Garden Equipment; Outdoor Applications

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (190 °C/2.16 kg)	3.5	g/10 min	ASTM D1238
Density	0.939	g/cm ³	ASTM D1505
Mechanical			
Tensile Strength at Yield	19.9	MPa	ASTM D638
Environmental Stress Crack Resistance			
(F50, 10% Igepal, 50 °C)	60.0	hr	ASTM D1693
(F50, 100% Igepal, 50 °C)	>1000	hr	ASTM D1693
Flexural Modulus, (1% Secant)	833	MPa	ASTM D790
Tensile Elongation at Break	240	%	ASTM D638
Impact			
Impact Strength			
(-40 °C, 3.18 mm, Rotational Molded)	75	J	ARM
(-40 °C, 6.35 mm, Rotational Molded)	>258	J	ARM
Thermal			
Deflection Temperature Under Load Unannealed (0.45 MPa), (Rotational Molded)	60.0	°C	ASTM D648
Deflection Temperature Under Load Unannealed (1.80 MPa)	38.8	°C	ASTM D648
Peak Melting Temperature	126	°C	ASTM D3418