Technical Data Sheet

Icorene 1490 PREBLEND

Polyethylene, Linear Medium Density

Product Description

Icorene 1490 is a UV stabilised hexene linear medium density polyethylene powder. It has been developed for use as a powder in rotational moulding.This grade is a very fast processing material but also has extremely high levels of ESCR and a very wide processing window for -40C ARM impact strength.Recommended PIAT can be as low as 130C to 150C depending on the position of the thermocouple.It is suitable for use in many different applications due to its high ESCR. But it is especially good for reducing oven cycle time by up to 30%. This is done using low PIATs and can result in significantly lower energy usage heating the oven. This effect is multiplied in thicker wall section.It is easy to process with a low shrinkage tendency. Faster melting can help to distribute the material more evenly across the mould.*Icorene* 1490 is not intended for use in medical and pharmaceutical applications.

Processing Method	Rotomolding
Attribute	Good Flow; Good Moldability; Good Processability; Good Stiffness; Good Toughness; UV Resistant
Forms	Powder
Appearance	Unspecified Color
Additive	Antioxidant; UV Stabilizer
Application	Agricultural; General Purpose; Tanks

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (190 °C/2.16 kg)	12	g/10 min	ISO 1133
Density, (23 °C)	0.936	g/cm³	ISO 1183
Mechanical			
Tensile Strength at Yield	18.0	MPa	ISO 527-2/1B
Environmental Stress Crack Resistance			
(Condition B, Rotational Molded, F50, 10% Igepal, 50 °C)	>500	hr	ASTM D1693
(Condition B, Rotational Molded, F50, 100% Igepal, 50 °C)	>1000	hr	ASTM D1693
Tensile Strain at Break, (23 °C)	>650	%	ISO 527-2/1B
Flexural Modulus, (23 °C)	730	MPa	ISO 178
Tensile Modulus, (23 °C)	700	MPa	ISO 527-2/1B
Impact			
Charpy Impact Strength - Notched, (23 °C)	14	kJ/m²	ISO 179-1/1eA
Impact Strength, (-40 °C, 3.20 mm, Rotational Molded)	>80	J	ARM
Tensile Impact Strength, (-30 °C, Notched)	73.0	kJ/m²	ISO 8256
Thermal			
Vicat Softening Temperature, (A (10N))	111	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa)	62	°C	ISO 75-2/B
DSC Melting Point	127	°C	ISO 3146