LL36RA045UV

LINEAR LOW DENSITY POLYETHYLENE

FOR ROTATIONAL MOULDING APPLICATION

Relene LL36RA045UV is a Butene co-monomer based Linear Medium Density Polyethylene (LLDPE). This grade is stabilized with appropriate quantity of HALS to give a long service with continuous outdoor exposure with or without blending of any carbon black. LL36RA045UV when pulverized into 20-30 mesh powder offers good processability. This grade has very good Environmental Stress Crack Resistance (ESCR) and a combination of stiffness and impact strength.

BIS Designation Code: IS 7328-2B-RD-CDC

Typical Characteristics

Property	Test Method	Unit	Typical Value*
Melt Flow Rate (190°C/ 2.16 kg)	ASTM D1238	g/10 min	4.5
Density	ASTM D792	g/cm^3	0.936
Tensile Strength at Yield	ASTM D638	MPa	18
Elongation at Yield	ASTM D638	%	20
Flexural Modulus	ASTM D790	MPa	700
Notched Izod Impact Strength	ASTM D256	J/m	No Break
ESCR (F_{50}, 10% Igepal)	ASTM D1693	Hr	>350
Hardness	ASTM D2240	Shore D	55
Vicat Softening Point	ASTM D1525	°C	117

*Typical values, not to be taken as specification. Mechanical Test are done on Compression Molded Specimen with accordance to ASTM D4976.

Typical Processing Conditions

Processing temperatures: 180 - 220 ^{O}C

Note: Processing parameters mentioned above are for reference only and not to be considered as specifications. They may vary based on the product to be manufactured.

Applications

Rotational molded products used in outdoor application like water tanks, road blocks etc.

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Regulatory Information

The product complies with Indian Standard IS 10146 on “Specification for Polyethylene for safe use in contact with foodstuffs, pharmaceuticals, and drinking water.” It also conforms to IS 16738:2018 on “Positive list of constituents for polypropylene, polyethylene and their copolymers for its safe use in contact with foodstuffs and pharmaceuticals.”

The grade and the additives incorporated in it also comply with the FDA:CFR Title 21,177.1520, Olefin polymers.

Not to be used in the manufacture of Single Use Plastic (SUP) items prohibited under PWM Rules, 2016.

Storage Recommendations

Bags should be stored in dry / closed conditions at temperatures below 50°C and protected from UV / direct sunlight

DISCLAIMER

The information contained herein may include typical properties and processing parameters of the grade or its typical performances when used in respective applications. The values given above are based on analysis of representative samples and not the actual product supplied. It is the customer’s responsibility to inspect and test our grades in order to satisfy itself as to the suitability of the products for customers’ particular application. The customer is solely responsible for all determinations regarding any use of material or product and any process in its area of interest. RIL assumes no obligation or liability for any loss, damage or injury directly or indirectly suffered or incurred as a result of using any of the information or product given in this document. The information and data presented herein is true and accurate to the best of our knowledge. No warranty or guarantee expressed or implied, is made regarding performance or otherwise. This information and data may not be considered as a suggestion to use our products without taking into account existing patents, or legal provisions or regulations, whether national or international. The user of any information and/or data is advised to obtain the latest details from any of the offices of the company or its authorized agents, as the information and/or data is subject to change based on the research and development work undertaken by the company.

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