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E52009

HIGH DENSITY POLYETHYLENE

FOR ORIENTED TAPE & MONOFILAMENT

Relene E52009 is a High-Density Polyethylene (HDPE) grade with low gel content, excellent orientation characteristic and negligible water carry-over. This grade is recommended for making raffia tapes and monofilaments (Diameter >0.20 mm) with excellent balance of high tenacity and good elongation.

BIS Designation Code: IS 7328- 3B-TB-FDA

Typical Characteristics

Property	Test Method	Unit	Typical Value*
Melt Flow Rate (190°C/ 5 kg)	ASTM D1238	g/10 min	0.90
Density	ASTM D792	g/cm^3	0.952
Tensile Stress at Yield (MD / TD)	ASTM D882	MPa	35 / 38
Ultimate Tensile Stress (MD / TD)	ASTM D882	MPa	50 / 45
Elongation at Break (MD / TD)	ASTM D882	%	900 / 950
Tear Strength (MD / TD)	ASTM D1922	g/µm	0.6 / 1.7

* Typical values, not to be taken as specification. Mechanical properties done on 40µ film with 0.75mm die gap and BUR of 2.75

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.

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Applications

Oriented tapes, woven sacks and monofilaments.

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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