54GC017

HIGH DENSITY POLYETHYLENE

FOR CAPS AND CLOSURE

Relene 54GC017 is a bimodal High-Density Polyethylene grade containing slip additive suitable for injection and extrusion-compression molded Caps & Closures. This grade offers excellent processability & organoleptic properties, very good balance of stiffness & toughness along with ESCR for Carbonated Soft Drink Closure Applications.

BIS Designation Code: IS 7328-3B-CB-FDB

Typical Characteristics

Property	Test Method	Unit	Typical Value*
Melt Flow Rate (190°C/ 2.16 kg)	ASTM D1238	g/10 min	1.25
Density	ASTM D792	g/cm^3	0.951
Tensile Stress at Yield	ASTM D638	MPa	27
Elongation at Yield	ASTM D638	%	9
Elongation at Break	ASTM D638	%	>900
Flexural Modulus	ASTM D790A	MPa	1050
Hardness	ASTM D2250	Shore D	62
ESCR	ASTM D5419	Weeks	>4
Vicat Softening Point	ASTM D648	°C	126

*Typical values, not to be taken as specification. All the mechanical properties are done on compression moulded specimen in accordance with ASTM D4976

Typical Processing Conditions

Processing temperatures: 180 - 220 °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

Caps & Closures for Beverage/Carbonated Soft Drinks, Food & Industrial Packaging, Shoulder for Collapsible Tubes/ Lamitubes.

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.