46GP009

POLYETHYLENE RESIN

FOR PIPE EXTRUSION AND PESTICIDE BOTTLES

Relene 46GP009 is a natural coloured PE:63 grade for pipe extrusion. It possesses bimodal molecular weight distribution which improves processability and mechanical properties. This grade meets the requirements of material as per clause 5.2 of IS 4984:2016 for 'Polyethylene pipes for Water Supply - Specification'. When incorporated with adequate quantity of carbon black masterbatch as specified in clause 5.3 of IS: 4984: 2016, pipes made with this grade confirms to all specifications as per IS 4984-2016.

The pipe made from this grade meets the hydrostatic strength requirement of PE-63 class of pipe as per IS 4984:2016.

The grade has excellent ESCR properties and is suitable for pesticide bottles.

BIS Designation Code: IS 7328-3B-PB-FTA

Typical Characteristics

Property	Test Method	Unit	Typical Value*
Melt Flow Index (190°C/ 5.0 kg)	ASTM D1238	g/10 min	0.9
Density (23°C)	ASTM D792	g/cm^3	0.948
Tensile Stress at Yield	ASTM D638	MPa	24.0
Elongation at Yield	ASTM D638	%	11.0
Elongation at Break	ASTM D638	%	>600
ESCR @ 10% Igepal Soln (F_{50})	ASTM D1693B	hrs	>1000

* 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

Typical Process Temperature: 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

Pipes for drinking water, drip irrigation, sprinkler systems, industrial effluent etc. , Pesticide bottles, Sheets, DWC Pipes.

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.

The level of antioxidant in 46GP009 is not more than 0.3% by mass of the resin.
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.