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AER003N

RANDOM COPOLYMER

FOR EXTRUDED PIPES & SHEETS

Repol AER003N is PP random copolymer recommended for pipe extrusion, sheet for thermoforming and extrusion blow molding.

BIS Designation Code: IS 10951-2-PB-A

Typical Characteristics

Property	Test Method	Unit	Typical Value*
Melt Flow Rate (230°C/2.16 kg)	ASTM D1238	g/10 min	0.3
Melt Flow Rate (230°C/5.0 kg)	ASTM D1238	g/10 min	1.0
Density	ASTM D792	g/cc	0.90
Tensile Strength at Yield (50 mm/min.)	ASTM D638	MPa	27
Elongation at Yield (50 mm/min.)	ASTM D638	%	14
Elongation at Break (50 mm/min.)	ASTM D638	%	> 500
Flexural Modulus (1% Secant)	ASTM D790A	MPa	850
Notched Izod Impact Strength (23 °C.)	ASTM D256	J/m	No Break
Heat Deflection Temperature (455 KPa)	ASTM D648	°C	92

* Typical values, not to be taken as specification. All the mechanical properties as per ASTM D638 injection molded Type 1 specimen in accordance with ASTM D4101

Typical Processing Conditions

Pipe extrusion

Melt temperature: 190 – 220 °C

Water bath temperature: 20 – 40 °C

Injection molding of fittings

Melt temperature: 190 – 240 °C

Mold temperature: 30 – 50 °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

Pipes, Fittings, Sheets & Thermoforming

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Note:

- Repol AER003N is a natural PP resin for PPR pressure Pipes application. The material is lightly stabilized and meets the designation of PP-R-P-A-N-10-35-003 as per IS 10951.
- When compounded with an approved and adequate quantity of antioxidants / thermal stabilizers it meets the designation of PP-R-P-H-N-10-25-003 as per IS 10951 and also meets the performance criteria as per IS 15801.
- When compounded with required colorants along-with approved and adequate quantity of antioxidants / thermal stabilizer It meets the designation of PP-R-P-H-C-10-25-003 as per IS 10951 and also meets the performance criteria as per IS 15801.

Regulatory Information

The product complies with Indian Standard IS 10910 on "Specification for polypropylene and its copolymers 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 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.