

# 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

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.