RELPURE

Reliance POLYMERS

5401P

RANDOM COPOLYMER

FOR EBM, 1-stage ISBM, BFS-IV bottles

Relpure 5401P is a random copolymer polypropylene grade with low melt flow, offering excellent processability, good clarity and impact resistance. It is specifically designed for applications in blow molding and extrusion. **Relpure 5401P** is well-suited for pharmaceutical, cosmetic, and food-contact products and is also suitable for medical application.

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

Typical Characteristics

Property	Test Method	Unit	Typical Value*
Melt Flow Rate (230°C/2.16 kg)	ASTM D1238	g/10 min	1.9
Density	ASTM D792	g/cc	0.90
Tensile Strength at Yield (50 mm/min.)	ASTM D638	MPa	26
Elongation at Yield (50 mm/min.)	ASTM D638	%	12
Flexural Modulus (1% Secant)	ASTM D790A	MPa	800
Notched Izod Impact Strength (23 °C.)	ASTM D256	J/m	65
Heat Deflection Temperature (455 KPa)	ASTM D648	°C	90
Hardness – Shore D	ASTM D2240	---	67

* 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

Melt temperature: 180 – 240 °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

BFS IV Bottles, ISBM IV Bottles, Cosmetic containers and Food Containers.

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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. This grade comply with FDA : CFR Title 21,177.1520, US Pharmacopoeia test(USP class Ⅵ), USP 661.1, IP 6.2.1.1.1 as well as the European Pharmacopoeia test(EP 3.1.6).

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.

The product(s) may not be used in:
(i) U.S. FDA Class III Medical Devices; Health Canada Class IV Medical Devices; European Class III Medical Devices.
(ii) applications involving permanent implantation into the body;
(iii) life-sustaining medical applications.
All references to U.S. FDA, Health Canada, and European Union regulations include another country’s equivalent regulatory classification.