Pinnacle PP 1703

Polypropylene Homopolymer

Pinnacle Polymers

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Technical Data

Product Description

3.5 MELT FLOW HOMOPOLYMER FOR STRETCHED TAPE APPLICATIONS

Pinnacle Polymers Polypropylene 1703 is made via UNIPOL™ PP technology, which utilizes gas-phase fluidized bed reactors with a high activity catalyst system to ensure uniform physical properties and lot-to-lot consistency.

This product is intended for woven products used for carpet backing, sacking, industrial and geotextile fabrics.

The 1703 product provides:

- Excellent color and processing stability
- Resistance to gas fading
- Low water carry-over
- Excellent lot-to-lot consistency

Pinnacle's polypropylene, as marketed by Pinnacle Polymers, in natural, uncolored pellet form complies with appropriate requirements of CFR Title 21, Part 177, Subpart B, Section 177.1520 (c) 1.1a entitled "Olefin Polymers" of the Food Additives Amendment of 1958 to the United States Food, Drug and Cosmetic Act of 1938.

General

Material Status	• Commercial: Active		
Literature [1]	• Technical Datasheet (English) • Technical Information - FDA (English)		
Search for UL Yellow Card	• Pinnacle Polymers • Pinnacle PP		
Availability	• Europe	• North America	
Features	• Food Contact Acceptable • Gas-fading Resistant	• Good Color Stability • Good Processing Stability	• Homopolymer • Low Water Carryover
Uses	• Carpet Backing • Industrial Applications	• Tape • Textile Applications	
Agency Ratings	• FDA 21 CFR 176.170(c), Table 2, Cond. C	• FDA 21 CFR 177.1520(c) 1.1a	
Appearance	• Natural Color		
Forms	• Pellets		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.900 g/cm³	0.900 g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	3.5 g/10 min	3.5 g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.015 in/in	1.5 %	ASTM D955
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Strength [3]			ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	5200 psi	35.9 MPa	
Tensile Elongation [3]			ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	10 %	10 %	
Flexural Modulus - 1% Secant [4]			ASTM D790A
0.126 in (3.20 mm), Injection Molded	240000 psi	1660 MPa	
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Notched Izod Impact [5]			ASTM D256
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	0.70 ft·lb/in	37 J/m	
Notched Izod Impact (Area) [5]			ASTM D256
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	1.76 ft·lb/in²	3.70 kJ/m²	
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	237 °F	114 °C	

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Notes

[1] These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

[2] Typical properties: these are not to be construed as specifications.

[3] Type I, 2.0 in/min (51 mm/min)

[4] Type I, 0.050 in/min (1.3 mm/min)

[5] Type I

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