TotalEnergies

Refining & Chemicals
Polymers

Polypropylene PPR 3221

Technical data sheet
Polypropylene – Random Copolymer
Produced in Europe

Description

Polypropylene PPR 3221 is a random copolymer polypropylene with a Melt Flow Index of 1.8 g/min for the manufacturing of films with outstanding optical properties and easy heat weldability in the blown process.

Polypropylene PPR 3221 is intended for food or textile packaging, for lamination films, for protection films… as well as for label films.

Characteristics

	Method	Unit	Typical Value
Rheological properties			
Melt Flow Index 230°C/2.16 kg	ISO 1133	g/10 min	1.8
Mechanical properties			
Elongation at Yield	ISO 527-2	%	<15
Flexural Modulus	ISO 178	MPa	900
Izod Impact Strength (notched)	ISO 180	KJ/m^2	
At 23°C			22
At 0°C			3.6
Hardness Rockwell – R-scale	ISO 2039-2		82
Thermal properties			
Vicat Softening Point	ISO 306	°C	
50N-50°C per hour			67
10N-50°C per hour			130
Other physical properties			
Density	ISO 1183	g/cm^3	0.902
Bulk Density	ISO 1183	g/cm^3	0.525

Handling and storage

Please refer to the safety data sheet (SDS) for handling and storage information. It is advisable to convert the product within one year after delivery provided storage conditions are used as given in the SDS of our product. SDS may be obtained from the website: www.polymers.totalenergies.com.

Polypropylene

Information contained in this publication is true and accurate at the time of publication and to the best of our knowledge. The nominal values stated herein are obtained using laboratory test specimens. These are typical values not to be construed as specification limits. Before using one of the products mentioned herein, customers and other users should take all care in determining the suitability of such product for the intended use. Unless specifically indicated, the products mentioned herein are not suitable for applications in the pharmaceutical or medical sector. The Companies within TotalEnergies Petrochemicals do not accept any liability whatsoever arising from the use of this information or the use, application or processing of any product described herein. No information contained in this publication can be considered as a suggestion to infringe patents. The Companies disclaim any liability that may be claimed for infringement or alleged infringement of patents.

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Additional Properties: typical film properties

	Method	Unit	Typical Value
Optical properties			
Gloss	ASTM D 2457		79
Haze	ISO 14782	%	2.1
Mechanical properties			
Tensile Strength at Yield MD *	ISO 527-3	MPa	35
Tensile Strength at Break MD *	ISO 527-3	MPa	70
Tensile Elongation at Break MD *	ISO 527-3	%	500
Dart Impact	ISO 7765-1	g	35
Elmendorf MD / TD *	ISO 6383-2	N/mm	3 / 20

* MD : Machine Direction TD : Transverse Direction

Properties measured on a 40µm thick film produced on a blown film line following TotalEnergies internal conditions.
When considering these film properties, it should be taken into consideration that film properties are strongly dependent from processing conditions.

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