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Polypropylene 1251

Technical Data Sheet Polypropylene – Homopolymer Produced in the United States

TotalEnergies Petrochemicals & Refining USA, Inc. Polymers Americas

Description

Polypropylene 1251 is a syndiotactic form of copolymer polypropylene made via TotalEnergies proprietary technology in our polypropylene plant in La Porte, Texas. Syndiotactic is a lower melting, lower crystallinity form of polypropylene.

FDA: 1251 complies with FDA regulations Title 21 CFR Section 177.1520 (c) 3.1 and may be used under these provisions for food contact and packaging.

Applications: 1251 is a high melt strength grade for film and sheet constructions. However, due to its unique and interesting properties, other applications may exist.

Processing: 1251 is a lower crystallinity, narrower molecular weight distribution product than conventional polypropylene. Because of this, the material melts at a lower temperature, is more viscous, and takes longer to set up. It is slightly more tacky and elastic in nature than conventional polypropylene. It offers excellent clarity and room temperature impact.

Made to Order Grade: Two railcar minimum order; take or pay agreement required; 90-day minimum lead time

Characteristics

	Method	Unit	Typical Value
Rheological Properties			
Melt Flow	D-1238	g/10 min	2.2
Mechanical Properties			
Tensile	D-638	psi (MPa)	2,200 (15)
Elongation @ Yield (Break)	D-790	%	11 (250)
Tensile Modulus	D-638	psi (MPa)	70,000 (480)
Flexural Modulus	D-790	psi (MPa)	50,000 (340)
Izod Impact Notched @ 73°F	D-256A	ftIbs/in. (J/m)	12 ⁽³⁾ (640)
Thermal Properties ⁽¹⁾			
Melting Point	DSC ⁽²⁾	°F (°C)	265 (130)
Other Physical Properties			
Density	D-1505	g/cc	0.88
Yellowness Index	D-1925		-3.7

⁽¹⁾ Data developed under laboratory conditions and are not to be used as specification, maxima or minima.

(3) Some specimens did not break

⁽²⁾ MP determined with a DSC-2 Differential Scanning Calorimeter. Test procedure available upon request.