

Polypropylene 3281

Technical Data Sheet
Polypropylene – Homopolymer
Produced in the United States

TotalEnergies Petrochemicals & Refining USA, Inc.
Polymers Americas

Description

Polypropylene 3281: The high melt strength of TotalEnergies Polypropylene 3281 allows uniform draw down during processing, resulting in maximum line speeds and a good balance of physical properties.

Process Stability: Excellent polymer stability of TotalEnergies 3281 produces consistent product properties during extrusion, even with the use of regrind.

FDA: 3281 has passed USP Class VI testing and complies with all applicable FDA regulations and may be used under these provisions for food contact applications.

Applications: 3281 is recommended for sheet and strapping applications where high melt strength and high extrusion speeds are required.

Processing: 3281 resin processes on conventional extrusion equipment with typical melt temperatures of 390°F-450°F (200°C-232°C).

Characteristics

	Method	Unit	Typical Value
Rheological Properties			
Melt Flow	D-1238 Condition “L”	g/10 min	1.3
Mechanical Properties			
Tensile @ Yield	D-638	psi (MPa)	4,900 (34)
Elongation	D-638	%	8
Tensile Modulus	D-638	psi (MPa)	220,000 (1,515)
Flexural Modulus	D-790	psi (MPa)	200,000 (1,380)
Izod Impact @ 73°F	D-256A	ft.-lbs/in. (J/m)	0.8 (43) 30.0 (1,600)
Notched			
Unnotched			
Hardness	D-1706 D-785A		81 90
Shore D			
Rockwell R			
Thermal Properties ⁽¹⁾⁽²⁾			
Melting Point	DSC	°F (°C)	330 (165)
Heat Deflection	D-648	°F @ 66 psi	220
		°C @ 4.64 kg/cm²	104
Coefficient of Linear Thermal Expansion	D-696	in./in./°F x 10 ⁻⁵	5.6
		cm/cm/°C x 10 ⁻⁵	10
Other Physical Properties			
Density	D-1505	g/cc	0.905

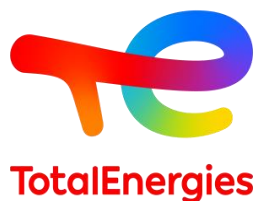
(1) Data developed under laboratory conditions and are not to be used as specification, maxima or minima.
(2) MP determined with a DSC-2 Differential Scanning Calorimeter. Test procedure available upon request.

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All tests were run under laboratory conditions. ASTM (where applicable) testing procedures. The data are intended as a general guide only and do not necessarily represent results that may be obtained elsewhere. The use of TotalEnergies products must be guided by the users own methods for selection of proper formulation. TotalEnergies Petrochemicals & Refining USA Inc. disclaims any responsibility for misuse or misapplication of its products. TotalEnergies MAKES NO WARRANTY OF MERCHANTABILITY AND THERE IS NO WARRANTY THAT GOODS SUPPLIED SHALL BE FIT FOR ANY PARTICULAR PURPOSE. TotalEnergies' liability and customer's exclusive remedy for any claims arising out of sales of its products are expressly limited at customer option to replacement of non-performing goods or payment not to exceed the purchase price plus transportation charges thereon in respect to any material which damage is claimed.



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