TOTAL
COMMITTED TO BETTER ENERGY

Polypropylene 3281

Technical Data Sheet
Homopolymer – Low Melt Flow for Sheet Extrusion, Strapping, and In-Line Thermoforming Applications

Produced in the United States

Description

Polypropylene 3281: The high melt strength of TOTAL 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 TOTAL 3281 produces consistent product properties during extrusion, even with the use of regrind.

FDA: 3281 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 390-450°F (200-232°C).

Characteristics

	Method	Unit	Typical Value
Rheological Properties			
Melt Flow	D-1238 Condition "L"	g/10 min	1.25
Mechanical Properties			
Tensile @ Yield	D-638	psi (MPa)	4,900 (34.0)
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 Notched Unnotched	D-256A	ft.-lbs/in. (J/m)	 0.8 (42.0) 30.0 (1,590)
Hardness Shore D Rockwell R	 D-1706 D-785A		 81 90
Thermal Properties(1)			
Melting Point	DSC(2)	°F (°C)	330 (165)
Heat Deflection	D-648	°F @ 66 psi °C @ 4.64 kg/cm^2	220 104
Coefficient of Linear Thermal Expansion	D-696	in./in./°F x 10^{-5} cm/cm/°C x 10^{-5}	5.6 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.

Polypropylene