



TotalEnergies

TotalEnergies Petrochemicals & Refining USA, Inc.
Polymers Americas

Polypropylene 3727WZ

Technical Data Sheet
Polypropylene – Random Copolymer
Produced in the United States

Description

Polypropylene 3727WZ strikes an optimum balance between excellent mechanical properties (tensile, flex and impact) and processability making it a superior molding grade for cap and closure applications.

Impact Strength: 3727WZ offers improved impact strength.

Nucleation: 3727WZ is formulated to provide fast cycle time and improve contact clarity in thin wall multi-cavity molds.

Antistat: 3727WZ contains an antistat to help protect molded parts from dust accumulation.

FDA: 3727WZ complies with all applicable FDA regulations for food contact applications.

Recommended Application: 3727WZ is recommended for large thin wall parts, caps and closures.

Processing: 3727WZ resin processes on conventional injection molding 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	20
Mechanical Properties			
Tensile Strength	D-638	psi (MPa)	4800 (35)
Elongation at Yield		%	12
Tensile Modulus	D-638	psi (MPa)	180,000 (1,240)
Flexural Modulus	D-790	psi (MPa)	190,000 (1,310)
Izod Impact Notched @ 73°F	D-256A	ft.-lbs/in. (J/m)	1.0 (53)
Drop Impact, 0.125*	API ⁽³⁾	Plaques in.lbs. (J)	160 (18)
Thermal Properties⁽¹⁾⁽²⁾			
Melting Point	DSC	°F (°C)	316 (158)
Heat Deflection	D-648	°F @ 66 psi	220
		°C @ 4.64 kg/cm ²	105
Vicat softening Point,	D-1525	°C	140
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.
- (3) 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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