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 @ Yield | D-638 | psi (MPa) | 4800 (35) |
| Tensile Elongation @ 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-lb/in (J/m) | 1.0 (53) |
| Drop Impact, 0.125* | API (3) | Plaques in.lbs. (J) | 160 (18) |
| **Thermal Properties(1)** | | | |
| Melting Point | DSC(2) | °F (°C) | 316 (158) |
| Heat Deflection | D-648 | °F @ 66 psi<br>°C @ 4.64 kg/cm$^2$ | 220<br>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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