

GEON® Polymax P3816-1

GEON Performance Solutions - Thermoplastic Elastomer

Thursday, February 29, 2024

General Information

Product Description:

Color: Natural

Features: soft Touch Rubbery Feel, Stretchable, Excellent Grip, Good Processability and Colorability.

Applications: Housewares, Consumers, Toys and Grips. Overmolding onto PP substrates.

Typical Properties

Physical	English	SI Metric	Test Method
Hardness (Shore A, 10 sec)	42	42	ASTM D2240
Specific Gravity	0.95 g/cm ³	0.95 g/cm ³	ASTM D792
Mechanical	English	SI Metric	Test Method
Tensile Strength	554.6 psi	3.82 MPa	ASTM D412
Tensile Elongation at Break	665 %	665 %	ASTM D412
Tensile Stress @100% Strain	207 psi	1.43 MPa	ASTM D412
Tensile Stress @300% Strain	389 psi	2.68 MPa	ASTM D412
Apparent Viscosity			
392°F (200°C), 11170 1/s	11.7 Pa.s	11.7 Pa.s	ASTM D3835
392°F (200°C), 1340.5 1/s	64.1 Pa.s	64.1 Pa.s	ASTM D3835

PROCESSING PARAMETERS

Injection Molding	English	SI Metric
Zone 1 Temperature (Feed)	320-350 °F	160-180 °C
Zone 2 Temperature (Middle)	350-383 °F	180-195 °C
Zone 3 Temperature (Front)	356-410 °F	180-210 °C
Zone 4 Temperature (Nozzle)	356-410 °F	180-210 °C
Mold Temperature	60 to 80 °F	16 to 27 °C
Back Pressure	50 to 150 psi	0.34 to 1.0 Mpa
Screw Speed	25 to 75 rpm	25 to 75 rpm
Suggested Maximum Regrind	20 %	20 %

Drying is not typically required. Drying Temperature is 175°F (80°C) for 2 hours if there is surface moisture.

Purge thoroughly before and after use of this product with a low melt flow polyethylene (PE) or polypropylene (PP).

Regrind-levels up to 20% can be used with Polymax TPE with minimum property loss.

(1) Data herein is typical and not to be construed as specifications.

(2) Unless otherwise specified, all data listed is for natural or black colored materials. Pigments can affect properties.

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