GEON® Polymax P31-493G-4V

GEON Performance Solutions - Thermoplastic Elastomer

Thursday, February 29, 2024

General Information

Product Description:

Color: Natural

Features: Soft Touch Feel, Flexible and Durable, Low Compression Set, Good Processability.

Applications: Sporting Goods, Handles and Grips, Household Goods, Overmold onto PP, PS/HIPS substrates.

Typical Properties

Physical	English	SI Metric	Test Method
Hardness (Shore A, 10 sec)	60 A	60 A	ASTM D2240
Density	1.10 g/cm^3	1.10 g/cm^3	ASTM D792
Mechanical	**English**	**SI Metric**	**Test Method**
Tensile Strength	689 psi	4.75 MPa	ASTM D412
Tensile Elongation at Break	475 %	475 %	ASTM D412
Tensile Stress @100% Strain	242 psi	1.67 MPa	ASTM D412
Tensile Stress @300% Strain	441 psi	3.04 MPa	ASTM D412
Apparent Viscosity			
392°F (200°C), 11170 1/s	9.7 Pa.s	9.7 Pa.s	ASTM D3835
392°F (200°C), 1340.5 1/s	44.0 Pa.s	44.0 Pa.s	ASTM D3835

INJECTION PROCESSING PARAMETERS

Suggested Conditions	English	SI Metric
Zone 1 Temperature (Feed)	356-383 °F	180-195 °C
Zone 2 Temperature (Middle)	374-400 °F	190-205 °C
Zone 3 Temperature (Front)	374-420 °F	190-215 °C
Zone 4 Temperature (Nozzle)	374-428 °F	190-220 °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.