

# 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 <sup>3</sup>	1.10 g/cm <sup>3</sup>	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.

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