GEON® Polymax P3870

GEON Performance Solutions - Thermoplastic Elastomer

Thursday, February 29, 2024

General Information

Product Description:

Color: Natural

Features: Soft Touch Rubbery Feel, Good Abrasion Resistant, Good Flow Property and Elasicity.

Applications: Overmolding onto PP substrates for flexible parts, houseware, grips, and seal applications.

Typical Properties

Physical	English		SI Metric		Test Method
Hardness (Shore A, 10 sec)	70		70		ASTM D2240
Specific Gravity	0.97	g/cm^3	0.97	g/cm^3	ASTM D792
Mechanical	**English**		**SI Metric**		**Test Method**
Tensile Strength	1407	psi	9.70	MPa	ASTM D412
Tensile Elongation at Break	835	%	835	%	ASTM D412
Tensile Stress @100% Strain	426	psi	2.94	MPa	ASTM D412
Tensile Stress @300% Strain	573	psi	3.95	MPa	ASTM D412
Apparent Viscosity					
392°F (200°C), 11170 1/s	9.4	Pa.s	9.4	Pa.s	ASTM D3835
392°F (200°C), 1340.5 1/s	49.2	Pa.s	49.2	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)	365-428	°F	185-220	°C
Mold Temperature	60 to 80	°F	16 to 27	°C
Back Pressure	50 to150	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.