



Provisional

Globalene TPV 7075A NT PRODUCT DATA SHEET

A medium hardness, multi-purpose and high sustainability value of thermoplastic elastomer featuring high elasticity and high temperature performance. Globalene TPV 7075A NT can be processed by extrusion or molding or compounding with plastics for applications such as grip, weatherstrip, seals, gaskets and other soft touch articles of consumer or sports goods. It can meet the circular economic market.

Attributes:

- Globalene TPV 7000 series is a fully vulcanized thermoplastic elastomers containing EPDM.
- It is designed for applications requiring higher sustainability value than conventional TPV.
- It incorporates at least 20 wt% PCR (post-consumer recycled) material.
- Circular economy.
- Conventional thermoplastic processing equipment can be used.

Applications:

Globalene TPV 7000 series is specially designed products that can meet the trend of circular economy. It has rubber-like touch, good chemical and weathering resistance and electrical property that is suitable to replace thermoset EPDM rubber, Styrene based TPEs, flexible PVC and other TPEs. It is an excellent choice for applications requiring flexibility in the following markets: automotive parts, appliance, business machines, construction, consumer products, and electronics.

Property	Typical Value	Unit	Test Method
PHYSICAL			
Hardness:			
Injection Molded, 15 sec	78	Shore A	ISO 868
Specific Gravity			
23°C	0.94	N/A	ISO 1183
Melting Point	150	°C	LCY Method
Compression Set			
22 hr @ 70°C	45	%	ISO 815
70 hr @ 125°C	65	%	
Brittle Point	-60	°C	ISO 812
Ozone Resistance			
500 hr, 100 pphm O ₃ conc.	Excellent		ASTM D-1149
MECHANICAL			
Tensile Stress @ Break			
23°C, 500 mm/min	8.0	MPa	ISO 37
Tensile Stress @ 100%			
23°C, 500 mm/min	4.0	MPa	ISO 37
Tensile Strain @ Break			
23°C, 500 mm/min	560	%	ISO 37
Tear Strength			
23°C, 500 mm/min	30	kN/m	ISO 34-1



PROCESSING & HANDLING GUIDE

Globalene TPV 7000 series is a PCR Polypropylene-EPDM based elastomer, which can be processed on conventional thermoplastic equipment by injection molding and extrusion. This product has a wide processing window in most applications with melt temperatures ranged from 180°C to 220°C. No pre-drying is required before processing.

If customer want to achieve the better molded appearance, it can be pre-dried with recommended for 1~2 hours at 80-90°C before processing.

INJECTION MOLDING CONDITIONS

Melt Temperature	180-220°C
Barrel Temperatures - Rear	160-180°C
Middle	180-200°C
Front	180-200°C
Nozzle	190-210°C
Injection Pressure	: 700-1000 psi (4.8-6.9 MPa)
Holding Pressure	: 300-600 psi (2.1-4.1 MPa)
Holding Time	: 4-10 seconds
Cooling Time	: 15-30 seconds
Mold Temperature	30-55°C
Screw Speed	100-200 RPM
Vent Depth	0.001 inch
Back Pressure	50-100 psi

EXTRUSION CONDITIONS

Melt Temperature	180-220°C
Barrel Temperatures - Zone 1 (Feed)	160~180°C
Zone 2	170~190°C
Zone 3 (Transition)	180~200°C
Zone 4 (Metering)	180~200°C
Zone 5 (Front)	190~210°C
Die	190~210°C
Roll Temperature	20-40°C
Screen Pack	20 to 60 mesh
Screw	General Purpose 3:1 Compression ratio ≥ 24:1 L/D ratio

Purging

Recommended to purge thoroughly before and after use of this product with fractional MFR polypropylene.

Recycling & Regrinding

This product can be reprocessed with physical properties not degraded in general. Dry regrind prior to reprocessing required.

Coloring

The use of polyolefin (PP or PE) based color concentrates is recommended when require for Natural TPV grades only. Apply back pressure in injection molding to disperse color.

Storage & Handling

Globalene TPV 1000 series is available in 25 kg with Laminated aluminum foil bags (up to 750 kg per pallet). It has a storage life of 3 years from production date with proper storage at normal temperature away from direct sunlight. Please refer to the Material Safety Data Sheet for this material prior to first time handling or contact LCY representative for further information.