Globalene TPV 4055A NT PRODUCT DATA SHEET

A Medium hardness, multi-purpose thermoplastic rubber featuring easy processability with good compression set and high temperature performance. Globalene TPV 4055A NT can be processed by extrusion or molding for applications such as weatherstrip profile, seals, window gaskets and other soft touch articles.

Attributes:

- Globalene TPV 4000 series is a fully cured Thermoplastic rubbers containing EPDM.
- It is designed for applications requiring good performance even at elevated temperatures.
- Suitable for injection molding and profile extrusion and conventional thermoplastic processing equipment can be used.
- No pre-drying is required.

Applications:

Globalene TPV has quality sealing property, good chemical and weathering resistance and electrical property that is suitable to replace main stream TPV, 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	58	Shore A	ISO 868
Specific Gravity 23˚C	0.96	N/A	ISO 1183
Melting Point	150	˚C	LCY Method
Compression Set 22 hr @ 70˚C 70 hr @ 125˚C	 37 62	%	ISO 815
Brittle Point	-65	˚C	ASTM D-746
Ozone Resistance 500 hr, 100 pphm O_3 conc.	Excellent		ASTM D-1149
MECHANICAL			
Tensile Strength 23˚C, 500 mm/min	5.5	MPa	ISO 37
Tensile Modulus @ 100% 23˚C, 500 mm/min	2.5	MPa	ISO 37
Ultimate Elongation 23˚C, 500 mm/min	640	%	ISO 37
Tear Strength 23˚C, 500 mm/min	21	kN/m	ISO 34-1

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PROCESSING & HANDLING GUIDE

Globalene TPV 4000 series is an EPDM based thermoplastic rubber, 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.

INJECTION MOLDING CONDITIONS

Melt Temperature		180-220°C
Barrel Temperatures -	Rear	180-190°C
	Middle	200-220°C
	Front	200-220°C
	Nozzle	200-220°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	10-150 psi

EXTRUSION CONDITIONS

Melt Temperature		180-220°C
Barrel Temperatures -	Zone 1 (Feed)	180°C
	Zone 2	190°C
	Zone 3 (Transition)	200°C
	Zone 4 (Metering)	210°C
	Zone 5 (Front)	210°C
	Die	210-220°C
Roll Temperature		20-50°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 4000 series is available in 25 kg with PE bags (up to 1000 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.

Disclaimer

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