Globalene® TPV 1080A BK

Thermoplastic Vulcanizate

Lee Chang Yung Chemical Industry Corp.

Message:

A medium-high hardness, multi-purpose thermoplastic elastomer featuring excellent compression set and high temperature performance. Globalene® TPV 1080A BK can be processed by extrusion or molding for applications such as weatherstrip profile, seals, window gaskets and other soft touch articles.

Globalene® TPV is a fully vulcanized Thermoplastic Elastomers containing EPDM and PP.

It is designed for applications requiring long term sealing performance at elevated temperatures.

Suitable for injection molding, profile extrusion or re-compounding for plastics modification.

Conventional thermoplastic processing equipment can be used.

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.

General Information			
Features	Vulcanable		
	Good electrical performance		
	Good flexibility		
	Ozone resistance		
	Good chemical resistance		
	Good weather resistance		
	Heat resistance, high		
	Medium hardness		
Uses	Electrical/Electronic Applications		
	Electrical appliances		
	Washer		
	Composite		
	Architectural application field		
	Seals		
	Weather-resistant sealing strip		
	Application in Automobile Field		
	Soft touch application		
	Business equipment		
	Plastic modification		
	Consumer goods application field		
Forms	Particle		
Processing Method	Composite		
	Extrusion		
	Profile extrusion molding		

Physical	Nominal Value	Unit	Test Method
Density (23°C)	0.958	g/cm³	ISO 1183
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 15 sec,			
Injection Molded)	83		ISO 868
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ¹ (100% Strain, 23°C)	4.60	MPa	ISO 37
Tensile Stress ² (Break, 23°C)	11.0	MPa	ISO 37
Tensile Elongation ³ (Break, 23°C)	590	%	ISO 37
Tear Strength ⁴ (23°C)	29	kN/m	ISO 34-1
Compression Set			ISO 815
70°C, 22 hr	43	%	ISO 815
125°C, 70 hr	67	%	ISO 815
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-65.0	°C	ISO 812
Melting Temperature	155	°C	Internal method
Additional Information	Nominal Value		Test Method
Ozone Resistance - 500 hr, 100 pphm O3			
conc.	Excellent		ASTM D1149
Extruder Screw L/D Ratio	>24.0:1.0		
Extruder Screw Compression Ratio	3.0:1.0		
Injection	Nominal Value	Unit	
Drying Temperature	80.0 - 90.0	°C	
Drying Time	3.0 - 4.0	hr	
Rear Temperature	180 - 190	°C	
Middle Temperature	200 - 220	°C	
Front Temperature	200 - 220	°C	
Nozzle Temperature	200 - 220	°C	
Processing (Melt) Temp			
Mold Temperature	200 - 220	°C	
Injection Pressure	200 - 220 30.0 - 55.0	°C °C	
Holding Pressure	30.0 - 55.0	°C	
	30.0 - 55.0 4.80 - 6.90	°C MPa	
Holding Pressure	30.0 - 55.0 4.80 - 6.90 2.10 - 4.10	°C MPa MPa	
Holding Pressure Back Pressure	30.0 - 55.0 4.80 - 6.90 2.10 - 4.10 0.0689 - 1.03	°C MPa MPa MPa	
Holding Pressure Back Pressure Screw Speed	30.0 - 55.0 4.80 - 6.90 2.10 - 4.10 0.0689 - 1.03 100 - 200	°C MPa MPa MPa rpm	
Holding Pressure Back Pressure Screw Speed Vent Depth	30.0 - 55.0 4.80 - 6.90 2.10 - 4.10 0.0689 - 1.03 100 - 200	°C MPa MPa MPa rpm	
Holding Pressure Back Pressure Screw Speed Vent Depth Injection instructions Holding Time: 4-10 seconds	30.0 - 55.0 4.80 - 6.90 2.10 - 4.10 0.0689 - 1.03 100 - 200	°C MPa MPa MPa rpm	
Holding Pressure Back Pressure Screw Speed Vent Depth Injection instructions Holding Time: 4-10 seconds Cooling Time: 15-30 seconds	30.0 - 55.0 4.80 - 6.90 2.10 - 4.10 0.0689 - 1.03 100 - 200 0.025	°C MPa MPa MPa rpm mm	

Cylinder Zone 1 Temp.	180	°C	
Cylinder Zone 2 Temp.	190	°C	
Cylinder Zone 3 Temp.	200	°C	
Cylinder Zone 4 Temp.	210	°C	
Cylinder Zone 5 Temp.	210	°C	
Melt Temperature	180 - 220	°C	
Die Temperature	210 - 220	°C	
Take-Off Roll	20.0 - 50.0	°C	
Extrusion instructions			
Screen Pack: 20 to 60 mesh			
NOTE			
1.	500 mm/min		
2.	500 mm/min		
3.	500 mm/min		
4.	500 mm/min		

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