# PrimoPrene 45D-1000

## Thermoplastic Vulcanizate

KMI Group Inc.

### Message:

#### Attributes:

PrimoPrene TPV is a thermoplastic elastomer containing fully vulcanized EPDM rubber.

It is designed for applications requiring long term sealing performance even at elevated temperatures up to 135°C (275F).

Can be processed using conventional thermoplastic processing equipment.

There is no need for costly and energy guzzling down stream equipment for curing.

Suitable for injection molding, blow molding, profile and sheet extrusion applications.

PrimoPrene TPV is supplied in weatherable (UV stabilized) black.

#### Applications:

Specific Gravity

PrimoPrene is a cost effective solution for replacing Santoprene rubber, styrenic-based TPEs, and thermoset rubbers such as EPDM, and Polychloroprene. 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					
Additive	Rubber 2				
	UV Stabilizer				
Features	Good Colorability				
	Good Flexibility				
	Good Heat Seal				
	Good UV Resistance				
	Soft				
Uses	Appliances				
	Automotive Applications				
	Business Equipment				
	Construction Applications				
	Consumer Applications				
	Electrical/Electronic Applications				
	Flexible Grips				
	Handles				
Appearance	Black				
Processing Method	Extrusion				
	Injection Molding				
	Profile Extrusion				
	Sheet Extrusion				
Physical	Nominal Value	Unit	Test Method		

g/cm<sup>3</sup>

ASTM D792

0.950

Melt Mass-Flow Rate (MFR) <sup>1</sup> (230°C/10.0 kg) 10 to 18 g/10 min ASTM D1238				
Hardness	Nominal Value	Unit	Test Method	
Durometer Hardness	Talue	<u> </u>	ASTM D2240	
Shore D, 5 sec	45			
Shore D, 15 sec	42			
Elastomers	Nominal Value	Unit	Test Method	
Tensile Stress <sup>2</sup> (100% Strain, 23°C)	9.10	MPa	ASTM D412	
Tensile Strength <sup>3</sup> (Yield, 23°C)	24.3	MPa	ASTM D412	
Tensile Elongation <sup>4</sup> (Break, 23°C)	550	%	ASTM D412	
Tear Strength <sup>5</sup> (23°C)	82.0	kN/m	ASTM D624	
Compression Set			ASTM D395	
70°C, 22 hr	57	%		
125°C, 70 hr	84	%		
Thermal	Nominal Value	Unit	Test Method	
Brittleness Temperature	-40.0	°C	ASTM D746	
Melting Temperature	159	°C	7.01111.07.10	
Additional Information	Nominal Value		Test Method	
Ozone Resistance <sup>6</sup>	Excellent		ASTM D1149	
	Nominal Value	Unit	A31WI D1149	
Injection  Daving Toppopulature				
Drying Temperature	82.2	°C		
Drying Time	3.0	hr		
Extrusion	Nominal Value	Unit		
Drying Temperature	65.6	°C		
Drying Time	3.0	hr		
NOTE				
1.	Procedure A			
2.	500 mm/min			
3.	500 mm/min			
4.	500 mm/min			
5.	Die C, 500 mm/min			
6.	500 hr, 100 pphm O3 conc.			

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