# Trexprene® D50NU

### Thermoplastic Vulcanizate

Mitsubishi Chemical Performance Polymers, Inc.

### Message:

General Information

Product Description: TREXPRENE ® D50NU is a heat stabilized PP/EPDM based Thermoplastic Vulcanized Elastomer (TPV). This Natural compound is intended primarily for underhood applications such as mats, seals, gaskets, air ducts, CVJ boots, covers, grommets or other parts where softness and conformity are needed. This material can be processed using Injection Molding, Extrusion, Blow Molding or other melt processing techniques.

Additive	Heat Stabilizer		
Features	Heat Stabilized		
	Soft		
Uses	Automotive Under the Hood		
	Constant Velocity Joint Boots		
	Gaskets		
	Grommets		
	Protective Coverings		
	Seals		
Appearance	Natural Color		
Forms	Pellets		
Processing Method	Blow Molding		
	Extrusion		
	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	0.900 to 0.960	g/cm³	ISO 1183
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, 15 sec)	47 to 53		ISO 868
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress - Across Flow <sup>1</sup> (100% Strain)	13.9	MPa	ISO 37
Tensile Stress - Across Flow <sup>2</sup> (Yield)	18.7	MPa	ISO 37
Tensile Elongation - Across Flow <sup>3</sup> (Break)	700	%	ISO 37
Tear Strength - Across Flow <sup>4</sup>	91	kN/m	ISO 34-1
Compression Set			
70°C, 24 hr	63	%	ASTM D395B
70°C, 24 hr <sup>5</sup>	63	%	ISO 815
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air			ISO 188
135°C, 1000 hr	13	%	

150°C, 168 hr	-7.1	%		
Change in Tensile Strain at Break in Air			ISO 188	
135°C, 1000 hr	-13	%		
150°C, 168 hr	-16	%		
Change in Tensile Stress (125°C, 70 hr, in IRM 903 Oil)	-26	%	ISO 1817	
Change in Tensile Strain at Break (125°C, 70 hr, in IRM 903 Oil)	-34	%	ISO 1817	
Change in Volume (125°C, 70 hr, in IRM 903 Oil)	32	%	ISO 1817	
Change in Tear Strength - 70 hrs, in IRM 903 Oil (125°C)	-48	%	ISO 1817	
Change in Tensile Properties				
Stress at 100% Elongation in Air, 168 hrs : 150°C	11	%	ISO 188	
Stress at 100% Elongation in IRM 903 Oil, 70 hrs: 125°C	-11	%	ISO 1817	
Ozone Resistance (40°C) <sup>6</sup>	0 Rating		ISO 1431-1	
Thermal	Nominal Value	Unit	Test Method	
Brittleness Temperature				
	-30.0	°C	ASTM D746	
Туре В	-30.0	°C	ISO 812	
NOTE				
1.	Type 1, 500 mm/min			
2.	Type 1, 500 mm/min			
3.	Type 1, 500 mm/min			
4.	Method Ba, Angle (Unnicked), 500 mm/min			
5.	Туре А			
6.	100 pphm, Method A			

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### Recommended distributors for this material

## Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533 Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

