Trexprene® A55BU

Thermoplastic Vulcanizate

Mitsubishi Chemical Performance Polymers, Inc.

Message:

Product Description: TREXPRENE ® A55BU is a heat stabilized PP/EPDM based Thermoplastic Vulcanized Elastomer (TPV). This Black 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.

General Information			
Additive	Heat Stabilizer		
Features	Heat Stabilized		
	Soft		
Uses	Automotive Under the Hood		
	Constant Velocity Joint Boots		
	Gaskets		
	Grommets		
	Protective Coverings		
	Seals		
Appearance	Black		
Forms	Pellets		
Processing Method	Blow Molding		
	Extrusion		
	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	0.920 to 0.980	g/cm ³	ISO 1183
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore A, 15 sec)	52 to 58		ISO 868
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress - Across Flow ¹ (100% Strain)	1.90	MPa	ISO 37
Tensile Stress - Across Flow ² (Yield)	5.30	МРа	ISO 37
Tensile Elongation - Across Flow ³ (Break)	590	%	ISO 37
Tear Strength - Across Flow ⁴	26	kN/m	ISO 34-1
Compression Set			
125°C, 70 hr	39	%	ASTM D395B
125°C, 70 hr ⁵	39	%	ISO 815
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air			ISO 188
135°C, 1000 hr	6.0	%	

150°C, 168 hr -2.3 % Change in Tensile Strain at Break in Air ISO 188 135°C, 1000 hr -1.0 % 150°C, 168 hr -2.9 % Change in Tensile Stress (125°C, 70 hr, in IRM 903 Oil) -53 % ISO 1817 Change in Tensile Stress (125°C, 70 hr, in IRM 903 Oil) -66 % ISO 1817 Change in Tensile Stress at Break (125°C, 70 hr, in IRM 903 Oil) -66 % ISO 1817 Change in Tensile Stress at Break (125°C, 70 hr, in IRM 903 Oil) -66 % ISO 1817 Change in Tensile Stress at 100% Elongation in RM 903 Oil) 110 % ISO 1817 Change in Tensile Properties -71 % ISO 1817 Stress at 100% Elongation in Air, 168 hrs : 150°C 8.9 % ISO 188 Stress at 100% Elongation in IRM 903 Oil, 70 hrs: 125°C -10 % ISO 1817 Ozone Resistance (40°C) ⁶ 0 Rating ISO 1431-1 Thermal Norminal Yalue Unit Test Method Brittleness Temperature - - 5.6.0 °C ASTM D746				
135°C, 1000 hr -1.0 % 150°C, 168 hr -2.9 % Change in Tensile Stress (125°C, 70 hr, in IRM 903 Oil) -53 % ISO 1817 Change in Tensile Strain at Break (125°C, 70 hr, in IRM 903 Oil) -66 % ISO 1817 Change in Tensile Strain at Break (125°C, 70 hr, in IRM 903 Oil) -66 % ISO 1817 Change in Volume (125°C, 70 hr, in IRM 903 Oil) 110 % ISO 1817 Change in Tear Strength - 70 hrs, in IRM 903 Oil (125°C) -71 % ISO 1817 Change in Tear Strength - 70 hrs, in IRM 903 Oil (125°C) -71 % ISO 1817 Change in Tear Strength - 70 hrs, in IRM 903 Oil, 70 hrs: 125°C -71 % ISO 1817 Change in Tearslie Properties -51 50 1817 ISO 188 Stress at 100% Elongation in Air, 168 hrs 8.9 % ISO 1817 Ozone Resistance (40°C) ⁶ 0 Rating ISO 1431-1 ISO 1431-1 Thermal Nominal Value Unit Test Method Brittleness Temperature - - 56.0 °C ASTM D746	150°C, 168 hr	-2.3	%	
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Change in Tensile Stress (125°C, 70 hr, in IRM 903 Oil) -53 % ISO 1817 Change in Tensile Strain at Break (125°C, 70 hr, in IRM 903 Oil) -66 % ISO 1817 Change in Volume (125°C, 70 hr, in IRM 903 Oil) 10 % ISO 1817 Change in Volume (125°C, 70 hr, in IRM 903 Oil) 110 % ISO 1817 Change in Tears Strength - 70 hrs, in IRM 903 Oil (125°C) -71 % ISO 1817 Change in Tensile Properties -71 % ISO 1817 Stress at 100% Elongation in Air, 168 hrs : 150°C 8.9 % ISO 1817 Oil, 70 hrs : 125°C -10 % ISO 1817 Czone Resistance (40°C) ⁶ 0 Rating ISO 1817 Czone Resistance (40°C) ⁶ 0 Rating ISO 1817 Thermal Nominal Value Unit Test Method Brittleness Temperature - ISO 812 ISO 812 Type B -56.0 °C ASTM D746 Type J, 500 mm/min - ISO 812 ISO 812 NOTE - - ISO 180 ISO 812	135°C, 1000 hr	-1.0	%	
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70 hr, in IRM 903 Oil)-66%ISO 1817Change in Volume (125°C, 70 hr, in IRM 903 Oil)110%ISO 1817Change in Tear Strength - 70 hrs, in IRM 903 Oil (125°C)-71%ISO 1817Change in Tear Strength - 70 hrs, in IRM 903 Oil (125°C)-71%ISO 1817Change in Tear Strength - 70 hrs, in IRM 903 Oil (125°C)-71%ISO 1817Change in Tear Strength - 70 hrs, in IRM 903 Oil, 70 hrs : 125°C8.9%ISO 1817Stress at 100% Elongation in IRM 903 Oil, 70 hrs : 125°C-10%ISO 1817Ozone Resistance (40°C) ⁶ 0 RatingISO 1817ISO 1817TermalNominal ValueUnitTest MethodPrittleness Temperature-ISO 1817ISO 181756.0°CASTM D746Type B-56.0°CSO 18121.Type 1, 500 mm/minISO 18172.Type 1, 500 mm/min-ISO 18173.Type 1, 500 mm/min-ISO 18124.Type 1, 500 mm/min-ISO 18125.Type 1, 500 mm/min-ISO 18125.Type 1, 500 mm/min6.Type 1, 500 mm/min7.Son Barne Information7.Son Barne Information7.Son Barne Information8.Son Barne Information9.Son Barne Information9.Son Bar		-53	%	ISO 1817
903 Oil)110%ISO 1817903 Oil (125 °C)-71%ISO 1817Change in Tensile Properties-%ISO 1817Change in Tensile PropertiesStress at 100% Elongation in Air, 168 hrs s. 150 °C%ISO 1887Stress at 100% Elongation in RIM 903 Oil, 70 hrs : 125°C-%ISO 1887Ozone Resistance (40°C) 60 Rating-ISO 1431-1ThermalNominal ValueUnitTest MethodBrittleness TemperatureASTM D746^66.0°CASTM D746Type B-56.0°CS0 812NOTE1.Type 1, 500 mm/min2.Type 1, 500 mm/min3.Otype 1, 500 mm/min4.Method Ba, Angle (Unnicked), 5005.Type AType A-		-66	%	ISO 1817
903 Oil (125°C)-71%ISO 1817Change in Tensile PropertiesStress at 100% Elongation in Air, 168 hrs 150°C8.9%ISO 188Stress at 100% Elongation in IRM 903 Oil, 70 hrs : 125°C-10%ISO 1817Ocl, 70 hrs : 125°C0 RatingISO 1817ISO 1817Ozone Resistance (40°C) ⁶ 0 RatingUnitTest MethodThermalNominal ValueUnitTest MethodBrittleness TemperatureStress Test Stress Test Stress TemperatureISO 1817156.0°CISO 812NOTEISO 8121.Type 1, 500 mm/minISO 8123.Type 1, 500 mm/min4.Method Ba, Angle (Unnicked), 500 mm/min5.Type AType A-		110	%	ISO 1817
Stress at 100% Elongation in Air, 168 hrs8.9%ISO 188: 150°C8.9%ISO 1817Stress at 100% Elongation in IRM 903 Oil, 70 hrs : 125°C-10%ISO 1817Ozone Resistance (40°C) ⁶ 0 RatingISO 1431-1ISO 1431-1ThermalNominal ValueUnitTest MethodBrittleness TemperatureASTM D74656.0°CASTM D746Type B-56.0°CISO 812NOTE1.Type 1, 500 mm/min-2.Type 1, 500 mm/min3.Type 1, 500 mm/min4.Method Ba, Angle (Unnicked), 500 mm/min5.Type AType A-		-71	%	ISO 1817
:150°C 8.9 % ISO 188 Stress at 100% Elongation in IRM 903 -10 % ISO 1817 Ozone Resistance (40°C) ⁶ 0 Rating ISO 1431-1 ISO 1431-1 Thermal Nominal Value Unit Test Method Brittleness Temperature -56.0 °C ASTM D746 Type B -56.0 °C ISO 812 ISO 812 NOTE 1.0 Type 1, 500 mm/min ISO 812 1. Type 1, 500 mm/min 1. Type 1, 500 mm/min 1. Type 1, 500 mm/min	Change in Tensile Properties			
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ThermalNominal ValueUnitTest MethodBrittleness Temperature-56.0°CASTM D746Type B-56.0°CISO 812NOTEType 1,500 mm/minSo 12So 121.Type 1, 500 mm/minSo 12So 123.Type 1, 500 mm/minSo 12So 124.Method Ba, Angle (Unnicked), 500 mm/minMethod Ba, Angle (Unnicked), 500 mm/minSo 125.Type ASo 12So 12		-10	%	ISO 1817
Brittleness Temperature °C ASTM D746 Type B -56.0 °C ISO 812 NOTE Type 1, 500 mm/min SO 1000000000000000000000000000000000000	Ozone Resistance (40°C) ⁶	0 Rating		ISO 1431-1
56.0°CASTM D746Type B-56.0°CISO 812NOTE1.Type 1, 500 mm/minISO 9002.Type 1, 500 mm/minISO 9003.Type 1, 500 mm/minISO 9004.Method Ba, Angle (Unnicked), 500 mm/minISO 9005.Type AType A	Thermal	Nominal Value	Unit	Test Method
Type B -56.0 °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. Type A - - -	Brittleness Temperature			
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. Type A		-56.0	°C	ASTM D746
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. Type A	Туре В	-56.0	°C	ISO 812
2. Type 1, 500 mm/min 3. Type 1, 500 mm/min 4. Method Ba, Angle (Unnicked), 500 mm/min 5. Type A	NOTE			
3. Type 1, 500 mm/min 4. Method Ba, Angle (Unnicked), 500 mm/min 5. Type A	1.	Type 1, 500 mm/min		
A.Method Ba, Angle (Unnicked), 500 mm/min5.Type A	2.	Type 1, 500 mm/min		
4. mm/min 5. Type A	3.	Type 1, 500 mm/min		
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6. 100 pphm, Method A	5.	Туре А		
	6.	100 pphm, Method A		

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