

# SANTOPRENE<sup>®</sup> 121-58W175

### **SANTOPRENE®**

A soft, black, UV resistant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material combines good physical properties and chemical resistance, and is designed for thin wall or complex profile extrusion applications. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for extrusion. It is polyolefin based and recyclable within the manufacturing stream.

#### **Key Features**

- · Recommended for applications requiring excellent flex fatigue resistance
- Excellent ozone resistance
- Designed for improved UV resistance
- Designed for extruding thin wall sections with excellent definition (down to 0.33 mm [0.013"] radius) and to maximize run length with minimal build-up of material on screen packs or narrow sections of dies

Product information				
Resin Identification		TPV		ISO 1043
Part Marking Code		>TPV<		ISO 11469
Typical mechanical properties				
Tensile stress at 100% elongation, perpendicular		1.99	MPa	ISO 37
Tensile stress at break, perpendicular			MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular		460		ISO 527-1/-2 or ISO 37
Brittleness Temperature		-60	-	ASTM D 746
Low temperature brittleness		-60	°C	ISO 812
Shore A hardness, 15s		61	0/	ISO 48-4 / ISO 868
Compression set, 70°C, 24h		27 43		ISO 815 ISO 815
Compression set, 125°C, 70h Tear strength, normal			% kN/m	ISO 815 ISO 34-1
real strength, normal		21	KIN/III	150 34-1
Specific Application Suitability				
Continuous Upper Temperature Resistance, 1000h		135	°C	SAE J2236
Electrical properties				
Relative permittivity, 60Hz		2.7		IEC 62631-2-1
Physical/Other properties				
Density		970	kg/m <sup>3</sup>	ISO 1183
Density		570	Ng/III	
Extrusion				
Drying Temperature		82	°C	
Drying Time, Dehumidified Dryer		-	h	
Melt Temperature Range		177 - 204	°C	
Characteristics				
Processing	Extrusion, Sheet Extrusion			
Delivery form	Pellets			
Special characteristics	U.V. stabilised or sta	ble to weathe	er	
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#### Additional information

Non Standard Data	Property Name	Condition N	/alue	Unit	Standard			
	Change in Tensile Strength	150°C, 168h -	21	%	ISO 188			
	Change in Tensile Strain at Break	150°C, 168h 7	7.7	%	ISO 188			
	Change in Shore A Hardness	150°C, 168h -	3	-	ISO 188			
Injection molding	A high screw RF Back pressure is may be used to	e should be about PM (100 to 200) is s not always neede ensure a homogen ressure is normally	recommendec ed, however, a neous melt and	I. back pressure c maintain a cons	of 0.3 to 0.7 MPa istent shot size.			
Processing Notes	Processing N	Processing Notes						
	TPV has a wide	Desiccant drying for 3 hours at 80°C (180°F) is recommended. Santoprene® TPV has a wide temperature processing window from 175 to 230°C (350 to 450°F) and is incompatible with acetal and PVC. Do not exceed 15% drawdown.						
Automotive								
OEM	STANDARD	STANDARD			ADDITIONAL INFORMATION			
BAIC	BAS-491	BAS-491						
BMW	GS93042							
Ford	WSS-M2D378-B1							
GAC	QJ/GAC 1240.022							
General Motors	GMW15812P-TPV	(EPDM+PP)-Type 4E	N/A					
Li Auto	Q/LiA5310057		2021 (V	2021 (V2)				
Mercedes-Benz	DBL5562							
Renault		-, No Spec, Special Pa r CE Account Manage						
SAIC Motor	SMTC 5 320 024							
Stellantis	55248_02 EMP60		01378_	15_01941;MS-AR- <sup>-</sup>	00 AGV			
Stellantis	B62 0300 / 61/31/L	B62 0300 / 61/31/U4/G1/52/212E/Y1/F1/F2/A1 01378_15_01941;MS-AR-100 AGV						
VW Group	/A0/L208E/P208E/ 0/T7/T131/Z1	P207M/K3/C1/J4/M1/	/Q2/R					

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VW Group	
VW Group	
VW Group	

VW 50123 VW 52703 VW TL 527 03

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