

SAE J2236 UL 749

UL 2157

SANTOPRENE® 101-55

SANTOPRENE®

A soft, black, versatile thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material combines good physical properties and chemical resistance for use in a wide range of applications. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding or extrusion. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

- UL listed: file #QMFZ2.E80017, Plastics Component; file #QMFZ8.E80017, Plastics Certified For Canada -Component
- Recommended for applications requiring excellent flex fatigue resistance
- Excellent ozone resistance

Product information

1 reddet i normation						
Resin Identification	TPV		ISO 1043			
Part Marking Code	>TPV<		ISO 11469			
Phoological properties						
Rheological properties						
Moulding shrinkage, parallel	3.7 ^[1]		ISO 294-4, 2577			
Moulding shrinkage, normal	0.9 ^[1]	%	ISO 294-4, 2577			
[1]: 2.0 mm thickness, min. 24 hours after molding, per test method TPE-X0080						
Typical mechanical properties						
Tensile stress at 100% elongation, perpendicular	1.88	MPa	ISO 37			
Stress at break, perpendicular		MPa	ISO 527-1/-2 or ISO 37			
Elongation at break, perpendicular	420	%	ISO 527-1/-2 or ISO 37			
Brittleness temperature	-60	°C	ISO 974			
Shore A hardness, 15s	60		ISO 48-4 / ISO 868			
Compression set, 70°C, 24h	23	%	ISO 815			
Compression set, 125°C, 70h	35	%	ISO 815			
Tear strength, normal	18	kN/m	ISO 34-1			
Thermal properties						
RTI, electrical, 1.5mm	90	°C	UL 746B			
RTI, electrical, 3.0mm	90	°C	UL 746B			
RTI, strength, 1.5mm	90	°C	UL 746B			
RTI, strength, 3.0mm	95	°C	UL 746B			
Specific Application Suitability						

Printed: 2024-11-21 Page: 1 of 3

135 °C

f3

f4

Revised: 2024-11-13 Source: Celanese Materials Database

Continuous Upper Temperature Resistance, 1000h

Detergent resistance

Detergent resistance



SANTOPRENE® 101-55

SANTOPRENE®

Flammability

Burning Behav. at 1.5mm nom. thickn. HB class IEC 60695-11-10 Thickness tested IEC 60695-11-10 1.5 mm **UL** recognition **UL 94** yes Burning Behav. at thickness h HB class IEC 60695-11-10 Thickness tested 1 mm IEC 60695-11-10 **UL** recognition **UL 94** yes Burning rate, Thickness 2 mm 24 mm/min ISO 3795 (FMVSS 302) PLC3 s Hot Wire Ignition, 1.5mm **UL 746A** PLC3 s Hot Wire Ignition, 3mm **UL 746A**

Electrical properties

Relative permittivity, 60Hz

Arc Resistance Performance Level Category

High Amperage Arc Ignition Category, 1.5 mm

2.4

PLC 6 class

UL 746B

UL 746A

Physical/Other properties

Density 970 kg/m³ ISO 1183

Injection

Max. regrind level20 %Back pressure0.517 MPaEjection temperature89 °C

Extrusion

Drying Temperature 82 °C
Drying Time, Dehumidified Dryer 3 h
Melt Temperature Range 196 °C

Characteristics

Processing Injection Moulding, Multi Injection Moulding, Extrusion, Sheet Extrusion, Coextrusion

Delivery form Pellets

Additional information

Non Standard Data

Property Name	Condition	Value	Unit	Standard
Change in Tensile Strength	150°C, 168h	-15	%	ISO 188
Change in Tensile Strain at Break	150°C, 168h	13	%	ISO 188
Change in Shore A	150°C, 168h	-1	-	ISO 188

Printed: 2024-11-21 Page: 2 of 3

Revised: 2024-11-13 Source: Celanese Materials Database



SANTOPRENE® 101-55

SANTOPRENE®

Hardness

Processing Notes

Processing Notes

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.

Automotive

OEM STANDARD ADDITIONAL INFORMATION

Ford WSD-M2D378-A1

General Motors GMW15813P-TPV-(EPDM+PP)-Type 4 N/A

Hyundai MS220-05 Type A

Mercedes-Benz DBL5562

Renault FRM 18-27-029 /--A, No Spec, Special Part

Approval, See Your CE Account Manager.

Stellantis 55248_02 EMP60 01378_20_04386 MS-AR-100

AGN;61/212E/212M/11/J4/M1/

Stellantis B62 0300 / 61/212E/212M/11/J4/M1/Q2/R0 01378_20_04386; MS-AR-100 AGN;

61/212E/212M/11/J4/M1/Q2/R0

VW Group VW 50123

Printed: 2024-11-21 Page: 3 of 3

Revised: 2024-11-13 Source: Celanese Materials Database

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colourants or other additives may cause significant variations in data values. Properties of moulded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design conditions and environmental exposure. Other than those products expressly identified as medical grade (including by MT® product designation or otherwise), Celanese's products are not intended for use in medical or dental implants. Regardless of any such product designation, any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use. To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication should not be construed as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication. Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, pr

© 2024 Celanese or its affiliates. All rights reserved. Celanese®, registered C-ball design and all other trademarks identified herein with ®, TM, SM, unless otherwise noted, are trademarks of Celanese or its affiliates. Fortron is a registered trademark of Fortron Industries LLC. KEPITAL is a registered trademark of Korea Engineering Plastics Company, Ltd.