

SANTOPRENE® 251-70W232

A soft, colorable, flame retardant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material has good fluid resistance and contains non-ether brominated flame retardants. It does not contain metal deactivators. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding, extrusion or blow molding. 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 a flame retardant material UL 94 Vertical Flame rated.
- · Recommended for applications requiring excellent flex fatigue resistance.
- · Recommended for applications requiring excellent ozone resistance.

Typical mechanical properties

Stress at 100% elongation Stress at break Elongation at break Shear Modulus Shore A hardness, 15s	6.3 550	MPa MPa % MPa	ISO 527-1/-2 or ISO 37 ISO 527-1/-2 or ISO 37 ISO 527-1/-2 or ISO 37 ISO 6721 ISO 48-4 / ISO 868
Thermal properties			
RTI, electrical, 1.5mm RTI, strength, 1.5mm RTI, strength, 3mm	85	°C °C °C	UL 746B UL 746B UL 746B
Flammability			
Burning Behav. at thickness h Thickness tested UL recognition Oxygen index Hot Wire Ignition, 1.5mm	V-0 3 yes 26 PLC 3	%	UL 94 UL 94 UL 94 ISO 4589-1/-2 UL 746A
Electrical properties			
Comparative tracking index Arc Resistance Performance Level Category Electric Strength, Short Time, 2mm High Amperage Arc Ignition Category, 1.5 mm High Voltage Arc Tracking Rate	PLC 0	class kV/mm	UL 746A UL 746B ASTM D 149 UL 746A UL 746A



SANTOPRENE® 251-70W232

Other properties			
Density	1240	kg/m³	ISO 1183
Injection			
Drying Temperature	82	°C	
Drying Time, Dehumidified Dryer	3	h	
Processing Moisture Content	0.08	%	
Max. regrind level	20	%	
Melt Temperature Optimum	215	°C	Internal
Max. mould temperature	10 - 52		
Vent depth		μm	
Back pressure	0.345 - 0.689	MPa	
Injection speed	fast		
Extrusion			
Drying Temperature	82	°C	
Drying Time, Dehumidified Dryer	3	h	
Processing Texts			
Processing Notes	Desiccant drying for 3 hours at 80	°C (180°F) is recommended	d.

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.

Printed: 2023-08-08

Page: 2 of 2

Revised: 2023-07-10 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 for any use contemplated by a mole call 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 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 he lowest that texist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards. We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, a

© 2023 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.