

SANTOPRENE® 121-87

A hard, black, UV resistant 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, extrusion, blow molding, thermoforming or vacuum forming. 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

Typical mechanical properties

Stress at 100% elongation	6.8 MPa	ISO 527-1/-2 or ISO 37
Stress at break	15.2 MPa	ISO 527-1/-2 or ISO 37
Elongation at break	600 %	ISO 527-1/-2 or ISO 37
Brittleness Temperature	-58 °C	ASTM D 746
Low temperature brittleness	-58 °C	ISO 812
Shore A hardness, 15s	93	ISO 48-4 / ISO 868
Shore A hardness change, after ageing	1	ISO 48-4 / ISO 868
Compression set at 23 °C, 24h	28 %	ISO 815
Compression Set, 125 °C, 70h	65 %	ISO 815

Electrical properties

Electric Strength, Short Time, 2mm	26 kV/mm	ASTM D 149
------------------------------------	----------	------------

Other properties

Density	970 kg/m ³	ISO 1183
---------	-----------------------	----------

Injection

Drying Temperature	82 °C
Drying Time, Dehumidified Dryer	3 h
Processing Moisture Content	0.08 %
Max. regrind level	20 %
Max. mould temperature	10 - 52 °C
Vent depth	25 µm
Back pressure	0.345 - 0.689 MPa
Injection speed	fast

SANTOPRENE® 121-87

Extrusion

Drying Temperature	82 °C
Drying Time, Dehumidified Dryer	3 h
Melt Temperature Range	204 °C

Processing Texts

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.
------------------	---

Other Approvals

Other Approvals

OEM	Specification	Additional Information
Stellantis - Chrysler	MS-AR-100 EGV	
Ford	WSS-M2D382-B1	
GM	GMW15812, Type 8E	
Li Auto	Q/LiA5310057	2021 (V2)
Stellantis - PSA Group	PMP 01378_15_01963	
Mercedes-Benz Group (Daimler)	DBL 5562	
Stellantis - FCA Group	55248/02	EMP-90
Geely	Q/JLY J7110166B	
Hyundai	MS220-05, Type N	
Iveco	IVECO 15-5244	EMP-90
Renault	FRM 18-27-145	
VW Group	VW50123	