

SANTOPRENE™ 591-56W175 - TPV

Product Description

Santoprene® 591-56W175 is a soft, black thermoplastic Vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material is designed for thin wall, architectural glazing and sealing application in the industry and consumer segments, and it has excellent resistance to compression set. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for extrusion, thermoforming. It is designed for extruding thin sections with excellent definition (down to 0.33 mm [0.013"] radius) and long runs with minimal build-up of material on screen packs or narrow die sections. It is polyolefin based and completely recyclable.

Characteristics

Color	Black
Delivery Form	Pellets
Processing	Coextrusion, Extrusion, Profile extrusion, Sheet extrusion, Thermoforming

Physical properties	Value	Unit	Test Standard
Density	60.6	lb/ft ³	ASTM D792
Hardness	Value	Unit	
Shore A hardness-TPE, 15s	61.5		ISO 868
Mechanical properties	Value	Unit	Test Standard
Tensile stress at 100%, perpendicular	302	psi	ASTM D412
Tensile strength at break elast, perpendicular	773	psi	ASTM D412
Elongation at break elast, perpendicular	439	%	ASTM D412
Compression set, 100 °C, 22h, Type 1, Method B	27	%	ASTM D395
Compression set, 125 °C, 70h, Type 1, Method B	43	%	ASTM D395
Aging	Value	Unit	Test Standard
Change in Tensile Strength in Air @ 150 C, 168 h	-21	%	ASTM D573
Change in Durometer Hardness in Air @ 150 C, 168 h, Shore A	-3	-	ASTM D573

Other text information

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. Do not exceed 15% drawdown.