

SANTOPRENE™ 591-73W175 - TPV

Product Description

Santoprene® 591-73W175 is a soft, black thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material is designed for thin wall, architectural glazing and sealing applications in industry and consumer segments. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for extrusion, thermoforming. It is polyolefin based and completely recyclable.

Key Features

- Recommended for glazing and sealing applications in industry and consumer segments.
- Excellent resistance to compression set.
- Designed for extruding thin sections with excellent definition (down to 0.33 mm [0.013"] radius). Long runs with minimal build-up of material on screen packs or narrow sections die sections.

Characteristics

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

Physical properties	Value	Unit	Test Standard
Density	60.6	lb/ft ³	ASTM D792
Hardness	Value	Unit	
Shore A hardness-TPE, 15s	78		ISO 868
Mechanical properties	Value	Unit	Test Standard
Tensile stress at 100%, perpendicular	524	psi	ASTM D412
Tensile strength at break elast, perpendicular	1260	psi	ASTM D412
Elongation at break elast, perpendicular	461	%	ASTM D412
Compression set, 23°C, 70h, Type 1, Method B	33	%	ASTM D395
Compression set, 125°C, 70h, Type 1, Method B	46	%	ASTM D395
Aging	Value	Unit	Test Standard
Change in Ultimate Elongation in Air @ 150 C, 168 h	-1	%	ASTM D573
Change in Tensile Elongation at Break in Air @ 150 C, 168 h	-8.2	%	ASTM D573
Change in Durometer Hardness in Air @ 150 C, 168 h, Shore A	0.3	-	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.