

SANTOPRENE™ 8281-35MED - TPV
Product Description

A soft, colorable, specialty, non-hygroscopic thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. It is designed for use in medical and healthcare applications. This grade of Santoprene™ TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding. It is polyolefin based and recyclable within the manufacturing stream.

Characteristics

Applications	Seals and Gaskets, Soft Touch Grips
Uses	Medical applications
Color	Natural color
Delivery Form	Pellets
Processing	Injection molding, Multi injection molding

Physical properties	Value	Unit	Test Standard
Density	0.91	g/cm ³	ASTM D792
Density	910	kg/m ³	ISO 1183

Hardness	Value	Unit	
Shore A hardness-TPE, 15s	39		ISO 868

Mechanical properties	Value	Unit	Test Standard
Tensile stress at 100%, perpendicular	0.9	MPa	ASTM D412
Tensile stress at 100%, perpendicular	0.9	MPa	ISO 37
Tensile strength at break elast, perpendicular	2.6	MPa	ASTM D412
Tensile stress at break, perpendicular	2.6	MPa	ISO 37
Elongation at break elast, perpendicular	330	%	ASTM D412
Tensile strain at break, perpendicular	330	%	ISO 37
Compression set, 23 °C, 168h, Type 1, Method B	13	%	ASTM D395
Compression set, 23 °C, 168h, Type A	13	%	ISO 815

Injection	Value	Unit	
Necessary low maximum residual moisture content	0.08	%	
Suggested maximum regrind	20	%	
Rear temperature	177 - 191	°C	
Middle temperature	179 - 193	°C	
Front temperature	185 - 199	°C	
Nozzle temperature	185 - 210	°C	
Melt temperature	143 - 216	°C	
Mold temperature	24 - 52	°C	
Injection speed	fast	-	
Back pressure	0.345 - 0.689	MPa	
Screw Speed	100 - 200	RPM	
Clamp tonnage	41 - 69	MPa	
Cushion	3.18 - 6.35	mm	
Screw L/D	20:1/*	-	
Screw compression ratio	2.5:1/*	-	
Vent depth	0.025	mm	

Other text information

Processing Notes

Desiccant drying for 3 hours at 80°C (180°F) can be performed if desired. Santoprene™ TPV has a wide temperature processing window from 175 to 230°C (350 to 450°F) and is incompatible with acetal and PVC.

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