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SANTOPRENE® 253-40 HF

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A colorable, halogen free flame retardant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family.This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for wire and cable extrusion, injection molding, muti injection molding, extrusion, sheet extrusion, blow modling, thermoforming, etc. It is polyolefin based and recyclable within the manufacturing stream

Key Features

- Halogen Free
- UL 94 V-0 flammability rating down to 1.6 mm (Internal Tested)

Product information

Resin Identification	TPV	ISO 1043
Part Marking Code	>TPV<	ISO 11469

Typical mechanical properties

Stress at 5% elongation	5.8	MPa	ISO 527-1/-2 or ISO 37
Stress at 10% elongation	7	MPa	ISO 527-1/-2 or ISO 37
Tensile stress at 50% elongation	7.1	MPa	ISO 527-1/-2 or ISO 37
Tensile stress at 100% elongation, perpendicular	6.9	MPa	ISO 37
Tensile stress at break, perpendicular	12.1	MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	610	%	ISO 527-1/-2 or ISO 37
Shore D hardness, 15s	46		ISO 48-4 / ISO 868

Flammability

Thickness tested	1.6	mm	IEC 60695-11-10
Oxygen index	43	%	ISO 4589-1/-2

Physical/Other properties

Density	1100	kg/m^3	ISO 1183

Characteristics

Processing	Injection Moulding, Multi Injection Moulding, Extrusion, Sheet Extrusion, Extrusion - Wire and Cable, Coextrusion, Blow Moulding, Thermoforming
Delivery form	Pellets
Additives	Non-halogenated/Red phosphorous free flame retardant

Additional information

Injection molding	Holding pressure should be about 50 to 75% of the actual injection pressure. A high screw RPM (100 to 200) is recommended. Back pressure is not always needed, however, a back pressure of 0.3 to 0.7 MPa may be used to ensure a homogeneous melt and maintain a consistent shot size. A higher back pressure is normally employed when using masterbatches.
Processing Notes	**Processing Notes** Desiccant drying for 3 hours at 80°C (180°F) is recommended. Santoprene®

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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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