

SANTOPRENE® 8281-45MED

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.

Key Features

- Biocompatibility in tests corresponding to USP Class VI/ISO 10993
- A representative grade undergoes annual testing for cytotoxicity and heavy metals
- Drug master file maintained with the FDA

Typical mechanical properties

Stress at 100% elongation	189 psi	ISO 527-1/-2 or ISO 37
Stress at break	522 psi	ISO 527-1/-2 or ISO 37
Elongation at break	440 %	ISO 527-1/-2 or ISO 37
Shore A hardness, 15s	49	ISO 48-4 / ISO 868
Compression set at 23 °C	12 %	ISO 815

Other properties

Density	474 lb/gal	ISO 1183
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Injection

Processing Moisture Content	0.08 %
Max. regrind level	20 %
Max. mould temperature	75.2 - 126 °F
Vent depth	1 mil
Back pressure	50 - 99.9 psi
Injection speed	fast

Processing Texts

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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