

# SANTOPRENE® 281-64MED

A soft, colorable, specialty 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 or extrusion. 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
- Recommended for applications requiring excellent flex fatigue resistance

## Typical mechanical properties

|                                     |         |                        |
|-------------------------------------|---------|------------------------|
| Stress at 100% elongation           | 392 psi | ISO 527-1/-2 or ISO 37 |
| Stress at break                     | 885 psi | ISO 527-1/-2 or ISO 37 |
| Elongation at break                 | 432 %   | ISO 527-1/-2 or ISO 37 |
| Shore A hardness, 15s               | 71      | ISO 48-4 / ISO 868     |
| Shore hardness change, after ageing | 2       | ISO 48-4 / ISO 868     |
| Compression set at 23 °C            | 27 %    | ISO 815                |
| Compression set at 70 °C, 24h       | 18 %    | ISO 815                |
| Compression Set, 125 °C, 70h        | 44 %    | ISO 815                |

## Other properties

|         |            |          |
|---------|------------|----------|
| Density | 495 lb/gal | ISO 1183 |
|---------|------------|----------|

## Processing Texts

|                  |                                                                                                                                                                                                                            |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processing Notes | Desiccant drying for 3 hours at 80 °C (180 °F) is recommended.<br>Santoprene® TPV has a wide temperature processing window from 175 to 230 °C (350 to 450 °F) and is incompatible with acetal and PVC in the molten state. |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|