

Outstanding performance and cost reduction opportunities for steering boots made with Santoprene® TPV



For many years rack and pinion steering boots made from Santoprene® thermoplastic vulcanizates (TPVs) have been meeting the needs of automotive under-chassis applications. Steering boots must withstand chemical and physical attack and extremes of temperature while maintaining excellent sealing performance.

Steering boot manufacturers are using Santoprene TPVs because, compared to EPDM rubber or chloroprene rubber, they can reduce weight, improve part performance and provide effective protection against the weather, oil, road salt, debris and other harsh environmental elements.

Key advantages

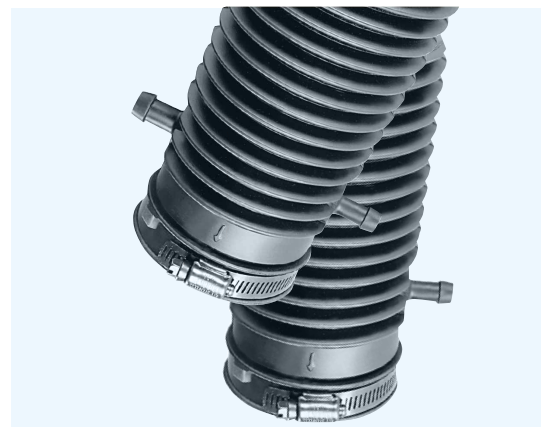
- Very low weight
- Very tight dimensional tolerances
- Outstanding sealability
- Excellent flex life
- Highly effective fluid resistance
- Minimal or no snaking issues
- Minimal flash

Long-term durability

Santoprene TPVs have been used in steering boots for 40 years because they offer long-term durability, flexibility and resistance to heat and oil. While rack and pinion steering boots represent only a small percentage of the total cost of the steering system to manufacture, a reduction in costs is possible through stable one-component blow molding.

Recycling opportunities

Santoprene TPVs can also contribute to a reduction in overall waste in the manufacturing process, as any scrap produced during processing can be recycled.



Ease of processing

One of the key benefits of Santoprene® TPVs is that they are easy to process. Santoprene TPVs combine properties that are similar to conventional thermoset rubber with the processing speed, efficiency and economy of a thermoplastic. Santoprene TPVs can be vacuum corrugated, extrusion blow molded and injection blow molded.

Santoprene TPVs are well-suited for use in the patented PRESSBLOWER injection blow molding process by Ossberger. The PRESSBLOWER process can produce very high quality finished products with tight tolerances. This is a critical factor for the effective sealing performance of rack and pinion boots.

Global automotive experience

With decades of experience in providing solutions to the global automotive industry, Celanese offers technical support and supply chain knowledge globally.

When looking to develop under-chassis sealing systems with outstanding performance and cost reduction opportunities, companies turn to the proven performance of Santoprene TPVs.



"PRESSBLOWER manufacturing process photo courtesy of Ossberger GmbH. For more information. Please visit <http://www.ossberger.de>.



Santoprene TPVs are used in the PRESSBLOWER process from Ossberger GmbH + Co.*

This publication was printed based on Celanese's present state of knowledge, and Celanese undertakes no obligation to update it. Because conditions of product use are outside Celanese's control, Celanese makes no warranties, express or implied, and assumes no liability in connection with any use of this information. Nothing herein is intended as a license to operate under or a recommendation to infringe any patents. Celanese®, registered C-ball design and all other trademarks identified herein with ®, TM, SM, unless otherwise noted, are trademarks of Celanese or its affiliates.

Copyright © 2022 Celanese or its affiliates. All rights reserved.

Contact us for more information:

santoprene.com

santoprene.answerperson@celanese.com

SAN-SteeringBoots-EN-SS-0222