Henniges Automotive, a leader in the manufacture of sealing solutions for the global automotive industry, is using Santoprene™ thermoplastic vulcanizate (TPV) from ExxonMobil Chemical to produce high-performance weatherseals for car manufacturer Skoda of the Czech Republic for their Fabia model in China. Henniges has selected Santoprene TPV as an alternative to EPDM rubber because it offers weight saving potential at an attractive sealing system cost.

Henniges was looking to provide upgraded static and semi-dynamic weatherseals for the Skoda lineup from “B” to “D” segment vehicles. The weatherseals included the glass run channel (GRC), belt line (BLS), and glass encapsulation (GE) seals for the Octavia and Fabia models. Weight reduction, sealing performance and improved aesthetics were key criteria in upgrading the weatherseals.

The company turned to ExxonMobil Chemical’s 40 years of material and application expertise, and the proven performance of its Santoprene TPV during this time, to help them fulfill these goals.

**Low weight, proven sealing performance**

“Santoprene TPV was an obvious choice because of its proven performance in many global weatherseal applications,” said Mr. Boris Gavric, Vice President Global Sales and Marketing Sealing, Henniges Automotive. “It enables us to produce lower weight weatherseals, while maintaining excellent sealing performance.”

Lower weight weatherseals are possible for a number of reasons. Santoprene TPV has a lower density than EPDM rubber while the optimized design enables thinner wall profiles and the use of a smaller metal insert.

Tests conducted by ExxonMobil Chemical compared the weight of a new Fabia GRC weatherseal made with Santoprene TPV to an old one made with EPDM rubber. At 350 grams, the Santoprene TPV GRC is more than 50% lighter than the EPDM GRC which weighed 750 grams.
“Changing to Santoprene TPV has been relatively straightforward,” said Mr. Boris Gavric. “As Santoprene TPV is a combination of EPDM rubber and polypropylene it has a similar chemistry to EPDM making it easy to work with, while providing many benefits.”

**Differentiating surface aesthetics**

Henniges was also looking for a solution that could provide a consistent, high-quality surface appearance across all “connected” weatherseal applications. The company wanted to harmonize color and gloss with no color change, no blooming and the same surface aging behavior over time.

Santoprene TPV, with a better UV performance than EPDM rubber, provides opportunities to improve the surface quality and aesthetics of the GRC, BLS and GE weatherseals.

Looking forward, Santoprene TPV also provides the potential to integrate metallic trim profiles with different colors and gloss levels. An important differentiator is that Santoprene TPV, unlike EPDM rubber, is not conductive, so the risk of corrosion is minimized.

“Using Santoprene TPV as a replacement for EPDM rubber has allowed us to achieve our goals and provide future opportunities for design and aesthetic optimization,” said Mr. Boris Gavric.

**About Henniges Automotive:**

Henniges provides automotive original equipment manufacturers (OEMs) with sealing systems for doors, windows, trunks, lift gates, sunroofs and hoods. The company also supplies the automotive market with anti-vibration products, encapsulated glass, and other rubber components. Henniges sells to all major automotive OEM customers and operates facilities in North America, Europe, and China. The company has over 6,500 employees worldwide.

**Contact us for more information:**
santoprene.com

Santoprene TPV GRC: 350g per part

Santoprene TPV GRC: 350g per part

Fabia Santoprene TPV GRC: 350g per part

Fabia EPDM rubber GRC: 750g per part