Q: What is the recycling code for Santoprene TPV?
A: According to ISO18064, the recycling code for Santoprene TPV is: TPV-(EPMD+PP)

Q: What is the IMDS number for Santoprene TPV?
A: Santoprene TPV grades are placed into IMDS using the following method:
• They are entered into IMDS as “Materials”
• They are identified by a “trade name” as well as by an “ID”
• Data is “published” without restriction, which means it can be consulted by any company that is authorized to access IMDS

See our IMDS cross-reference guide.

Q: What are the CAS numbers for Santoprene TPV?
A: CAS numbers are normally only given to pure products. This means products consisting of one type of molecule only. The CAS number is used to unequivocally identify these materials and make the identification independent of whatever naming system is used to give a molecule a name.

Since Santoprene TPV is a mixture of products (PP, EPDM rubber and other products) it cannot be attributed a CAS number. The constituents of Santoprene TPV have a CAS number, but these are the proprietary information of ExxonMobil Chemical.

Q: What is the shrinkage of Santoprene TPV?
A: Prototyping is the only method to determine accurate shrinkage data for Santoprene TPV (assuming the desired dimensions of a part can be attained). This should be used on a single cavity mold that is built in a “steel safe” condition to allow for small corrections and is gated in the same location(s) as the production mold.

Prototype samples should be run for at least 30 minutes under the same conditions as would be used for a production run. It is best to make the dimensional measurements after a 48-hour period at room temperature, as 85% of shrinkage will occur during this time. It is important to note that with crystalline or partially crystalline materials, such as polyethylene (PE) or PP, the ultimate shrinkage may not be reached for days, weeks or even months.
Numerous factors affect shrinkage, including:

- **Material**: hardness, viscosity, and type (general purpose, molding, high flow, etc.)
- **Part and tool design**: geometry of part; length and wall thickness of part; runner style and size; gate type, size and position; vent locations and sizes
- **Process conditions**: melt temperature, ram velocity, mold temperature, cooling time, injection fill pressure, pack pressure, hold pressure

See technical literature about the shrinkage rates of injection molded Santoprene TPV.

**Q**: What is the fluid resistance of Santoprene TPV?

**A**: Fluid resistance is available for 40 grades of Santoprene TPV and 39 different fluid mediums ranging from 1-propanol to zinc chloride, 10%.

See the full Santoprene TPV fluid resistance guide.

**Q**: Can Santoprene TPV contribute to sustainability improvements?

**A**: Recycling and regrinding

Santoprene TPV can contribute to a reduction in overall waste in the manufacturing process as scrap produced during processing can be recycled. The recycling code for Santoprene TPV is TPV-(EPDM+PP).

Up to 20% regrind can be used without affecting the physical properties of the final part. It is recommended that the shape of the regrind granules is as close as possible to virgin Santoprene TPV material for a homogenous blend.

See the technical literature about the regrind stability of Santoprene TPV in the blow molding process.

**Q**: What are the ways of bonding Santoprene TPV to other materials?

**A**: Bonding Santoprene TPV to metal

In insert molding, if the insert and the TPV are compatible materials, a melt bond occurs at the interface between the two materials. Non-compatible insert materials such as metal can also be used, but an adhesive must be applied to the insert so that it bonds with the TPV. There is one exception; ExxonMobil Chemical does manufacture a special Santoprene TL grade that can bond with metal.

Another way of combining incompatible materials is to design the part with mechanical locks, so the molten TPV material flows into the locking area and creates a bond.

For low-volume applications requiring insert molding, the inserts can be hand-loaded. For higher volumes, robotic pick and place equipment may be a cost effective choice. Applications need to be evaluated on a case-by-case basis to learn which method is most cost effective.

Learn more about the processing and insert molding of Santoprene TPV.

**Bonding Santoprene TPV to other plastics**

Many Santoprene TPV grades can bond to a wide range of other polymers, such as PC, ABS, PS, PET and blends, PA and ExxonMobil™ PP.

**Insert molding** (sometimes called overmolding)

Santoprene TPV bonding grades B100 and B150 excel at overmolding onto engineered thermoplastics such as PC, ABS, PS, PET and blends, PA, ExxonMobil PP, and a variety of other materials. Grades also bond to PMMA, ASA and PPO/PS blends.

To find details about Santoprene TPV bonding grades B100 and B150, see the bonding grade slate for engineered plastics.
Two-shot injection molding
Used in injection molding, Santoprene TPV B500 bonding grades offer standout noise, vibration and heat performance as well as excellent bonding to PA components.

ExxonMobil Chemical has licensed manufacturing rights for the Santoprene™ thermoplastic vulcanize (TPV) nylon bondable thermoplastic elastomer (TPE) product line to RTP Company. RTP Company now produces and sells the products globally under RTP 6091 Series bondable thermoplastic elastomer compounds.

Specialty Santoprene TPV grades also exist to bond to ABS, PC, PS, EPDM rubber, and metals.

Q: Does Santoprene TPV comply with REACH?
A: Find out more about Santoprene TPV and REACH, the European Community Regulation on chemicals and their safe use (EC 1907/2006) which deals with the Registration, Evaluation, Authorization and Restriction of Chemical substances.

Q: What Santoprene TPV grades are there?
A: Nomenclature
ExxonMobil Chemical uses a nomenclature system to identify and describe our products.

Grade tables
Refer to:
- Santoprene TPV grade slate for Automotive applications
- Santoprene TPV grade slate for Industrial & Consumer applications

Santoprene TPV grade discontinuation
In order to ensure that the product offering remains both competitive and sustainable, ExxonMobil Chemical regularly takes the opportunity to review its Santoprene TPV product portfolio to streamline its product range.

It may be possible that a grade being used by a customer is no longer listed or available. If this is the case, customers should contact our technical support group for confirmation that the grade is no longer available and to determine a proposition for an alternative grade.

Q: How does Santoprene TPV comply with OEM specifications?
A: How Santoprene TPV rates against OEM specifications varies from product to product and the component for which it is intended.

For details of which Santoprene TPV grades meet different automotive OEM specifications in the US, check our compliance documents. For Europe and Asia, please email elastomers.answerperson@exxonmobil.com for more information.
What is the classification of Santoprene TPV according PSA B620300?
The classification of Santoprene TPV according to PSA B620300 varies from product to product. This information is regularly reviewed with respect to all of ExxonMobil Chemical’s automotive classifications (USA, EU, and Asia OEM), what information will be published, and in which format. Each grade has a different classification depending on the OEM.

To find out more, US OEMs can see our list of compliance documents while those in Europe and Asia should email elastomers.answerperson@exxonmobil.com for more information. See technical literature about Santoprene TPV automotive specifications.