# TPSiV® X5300 A8503 NAT 25644

## SILICONE THERMOPLASTIC ELASTOMER

When you combine the strength, toughness, and abrasion resistance of thermoplastic elastomer with the soft silkiness, UV and chemical resistance, and colorability of silicone, you get DuPont™ TPSiV®. Durable, yet both silky and non-tacky (dirt-resistant), TPSiV® delivers exceptional performance and aesthetics.
TPSiV® products incorporate vulcanized silicone in a thermoplastic matrix and can be customized for specific applications and can be recycled and reused in your manufacturing processes. This makes them remarkably versatile and reliable for a wide range of applications.

TPSiV® X5300 A8503 NAT 25644 thermoplastic elastomer is a low odor, plasticizer-free thermoplastic elastomer with excellent bonding to polypropylene and polyethylene. It is a product targeted for flexible pipe connectors in potable water systems.

### Rheological properties

| | | |
|---|---|---|
| Flow length | 330 | mm |
| Flow length - pressure | 8 | MPa |

### Typical mechanical properties

| | | | |
|---|---|---|---|
| Stress at break | 14 | MPa | ISO 527-1/-2 or ISO 37 |
| Elongation at break | 27 | % | ISO 527-1/-2 or ISO 37 |
| Shore A hardness, 15s | 86 | | ISO 48-4 / ISO 868 |
| Compression set at 23°C | 37 | % | ISO 815 |
| Compression set at 70°C, 24h | 45 | % | ISO 815 |
| Compression set at 100°C, 24h | 56 | % | ISO 815 |
| Tear strength, parallel | 61 | kN/m | ISO 34-1 |

[1]: Cross direction

### Other properties

| | | | |
|---|---|---|---|
| Density | 950 | kg/m³ | ISO 1183 |

### Injection

| | |
|---|---|
| Drying Recommended | no |

### Extrusion

| | | |
|---|---|---|
| Melt Temperature Range | 160 - 180 | °C |

### Characteristics

| | |
|---|---|
| Compatibility | Polyolefins |

### Additional information

| | |
|---|---|
| Injection molding | TPSiV® elastomers products can be manufactured using standard thermoplastic manufacturing processes, including overmolding or co-molding with plastic substrates such as polycarbonate, ABS and nylons.<br>TPSiV® elastomers self-adhere to hard plastics to enable unique overmolding options. The extremely silky feel of TPSiV elastomers does not require |

# TPSiV® X5300 A8503 NAT 25644

## SILICONE THERMOPLASTIC ELASTOMER

additional processing or coating steps.



DuPont

Please refer to DuPont Medical Application Policy before any use of DuPont material in a medical application- Position Statements | DuPont .

Do not use DuPont products in medical application involving permanent implantation (more than 29 days) in the human body or contact with internal body fluids or tissues (for more than 29 days) unless the product has been provided from DuPont under a written contract that is consistent with the DuPont policy regarding medical applications and expressly acknowledges the contemplated use.

Although these products may have been tested in accordance with certain USP Class VI or ISO 10993 standards, DuPont makes no representation or warranty, express or implied, regarding the suitability of its products for any particular healthcare or medical application, nor does it make any other representations or warranties based on such testing. Customers are solely responsible for determining whether DuPont products are suitable for their intended purpose and for ensuring legal and regulatory compliance of the product in final application. DuPont disclaims any and all liability for incidental, special, or consequential damages arising out of or relating to the customer's use of DuPont products.

The information, suggestions, and data (collectively referred to as "Information") set forth herein are based on technical data that DuPont believes to be reliable and fall within the normal range of properties. Such Information is provided for informational purposes only and is not intended to substitute for any testing necessary to determine the suitability of a particular material for a specific purpose. The Information is to be used and relied upon at the user's sole discretion and risk. DuPont makes no warranties, express or implied, and disclaims any and all liability, whether direct or indirect, for damages or losses arising out of or relating to the use of the Information, suggestions, data, or materials described herein.

Statements concerning the use of the products or formulations described herein are not to be construed as recommending the infringement of any patent, copyright, designs or other intellectual property and no liability for infringement arising out of such use is assumed by DuPont. None of this information is to be considered as a license to operate under, or recommendation to infringe, any patents.