

## Covestro Texin® 5286 Thermoplastic Polyurethane, Polyether-based, Medical (discontinued \*\*)

Category: Polymer, Thermoplastic, Polyurethane, TP, Thermoplastic Polyurethane (TPUR), Polyether Grade

## **Material Notes:**

This grade is in chemical compliance with 21 CFR 177.1680 (Polyurethane Resins) and 177.2600 (Rubber articles intended for repeated use) subject to the limitations of this regulation and any other regulations. It is the responsibility of the medical device, biological product, or pharmaceutical manufacturer (Manufacturer) to determine the suitability of all component parts and raw materials, including the Bayer Corporation product identified in this electronic database, used in its final product in order to ensure safety and compliance with FDA regulations. This determination must include, as applicable, testing for suitability as an implant device and suitability as to contact with and/or storage of solutions/liquids, including, without limitation, blood, medication, or other bodily fluids. Under no circumstances, however, may the Bayer Corporation product be used in any cosmetic, reconstructive or reproductive implant applications. Nor may any Bayer Corporation resin be used in any other bodily implant applications or any applications involving contact with or storage of human tissue, blood or other bodily fluids for greater than 30 days, based on FDA modified ISO 10993, Part 1 Biological Evaluation of Medical Devices tests. Furthermore, for aromatic grades of Texin TPU resins, longer term uses are not permissible because possible hydrolysis of solid urethane may produce aromatic amines, such as methylene dianiline (MDA). The suitability of a Bayer product in a given end-use environment is dependent upon various conditions including, without limitation, chemical compatibility, temperature, part design, sterilization method, residual stress, or external loads. It is the responsibility of the Manufacturer to evaluate its final product under actual end-use requirements and to adequately advise and warn purchasers and users thereof. Single use medical devices made from Bayer products are not suitable for multiple uses. If the medical device is designed for multiple uses, it is the responsibility of the Manufacturer to determine the appropriate number of permissible uses by evaluating the device under actual sterilization and end-use conditions and to adequately advise and warn purchasers and users thereof. If you have any questions on the regulatory status of any of Bayer Corporation products identified in this electronic database, please contact your local Bayer Corporation representative or the Bayer Corporation Regulatory Affairs Manager in the Health, Environment, and Safety Department in Pittsburgh, Pa. Biocompatibility Information The medical grades of the Bayer Corporation products identified in this electronic database have met the FDA modified ISO 10993, Part 1 Biological Evaluation of Medical Devices tests with human tissue contact time of 30 days or less. ONLY THESE PRODUCTS MAY BE CONSIDERED AS CANDIDATES FOR APPLICATIONS REQUIRING BIOCOMPATIBILITY. No medical grade products will be available for sale until successful completion of testing. Regrind resins must not be used in medical applications requiring biocompatibility. Sterilization Information The sterilization method and the number of sterilization cycles a part made from a Bayer Corporation product identified in this electronic database can withstAs of 1 September 2015, Bayer MaterialScience was separated from Bayer AG and has officially adopted its new name - Covestro. This product was discontinued prior to the separation.

Order this product through the following link:

http://www.lookpolymers.com/polymer\_Covestro-Texin-5286-Thermoplastic-Polyurethane-Polyether-based-Medical-nbspdiscontinued-.php

| Physical Properties               | Metric       | English                   | Comments  |
|-----------------------------------|--------------|---------------------------|-----------|
| Density                           | 1.12 g/cc    | 0.0405 lb/in <sup>3</sup> | ASTM D792 |
| Linear Mold Shrinkage             | 0.0080 cm/cm | 0.0080 in/in              | ASTM D955 |
| Linear Mold Shrinkage, Transverse | 0.0080 cm/cm | 0.0080 in/in              | ASTM D955 |



| Mechanical Properties          | Metric               | English             | Comments                                   |
|--------------------------------|----------------------|---------------------|--|
| Hardness, Shore A              | 86                   | 86                  | ASTM D2240                                 |
| Tensile Strength, Ultimate     | 38.0 MPa             | 5510 psi            | ASTM D412                                  |
| Tensile Strength, Yield        | 4.80 MPa             | 696 psi             | 50% Elongation; ASTM D412                  |
| Elongation at Break            | 500 %                | 500 %               | ASTM D412                                  |
| Flexural Modulus               | 0.0270 GPa           | 3.92 ksi            | ASTM D790                                  |
| Resilience                     | 45                   | 45                  | % Bayshore Resilience; ASTM D2632          |
| Tear Strength                  | 90.0 kN/m            | 514 pli             | Die C; ASTM D624                           |
| Taber Abrasion, mg/1000 Cycles | 30                   | 30                  | H-18 Wheel, 1000 g load, ASTM<br>D3489     |
| Compression Set                | 16 %                 | 16 %                | 22 hours at RT (Postcured); ASTM<br>D395-B |
|                                | 40 %                 | 40 %                | 22 hours (Postcured); ASTM D395-B          |
|                                | @Temperature 70.0 °C | @Temperature 158 °F |  |

| Thermal Properties        | Metric      | English     | Comments           |
|---------------------------|-------------|-------------|--------------------|
| Vicat Softening Point     | 80.0 °C     | 176 °F      | Rate A; ASTM D1525 |
| Brittleness Temperature   | <= -68.0 °C | <= -90.4 °F | ASTM D746          |
| Glass Transition Temp, Tg | -46.0 °C    | -50.8 °F    | DMA                |

| Processing Properties | Metric | English | Comments |
|-----------------------|--------|---------|----------|
| Melt Temperature      | 195 °C | 383 °F  |          |

## **Contact Songhan Plastic Technology Co.,Ltd.**

Website: www.lookpolymers.com Email: sales@lookpolymers.com

Tel: +86 021-51131842 Mobile: +86 13061808058 Skype: lookpolymers

Address: United North Road 215, Fengxian District, Shanghai City, China