



Thermoplastic Polyurethanes

High-performance thermoplastics for medical applications

Texin[®]



High-performance thermoplastic polyurethanes for the Medical industry

Texin® Grade	Hardness	Process	100% Modulus (MPa)	Tensile Strength (MPa)	Tear Strength (kN/M)	Tg (°C)	Vicat (°C)	Flex Modulus 23°C (MPa)	Taber Abrasion (mg loss, H-18 wheel)	Clarity
Texin® RxT70A	70A	IM/EX	3.4	26	60	-57	75	14	7	Good
Texin® RxT80A	84A	IM/EX	5.3	27	88	-46	80	27	30	Excellent
Texin® RxT85A	85A	IM/EX	5.5	37	88	-46	80	27	30	Excellent
Texin® RxT90A	90A	IM/EX	7.6	41	136	-44	106	41	25	Excellent
Texin® RxT50D	50D	IM/EX	14.0	48	131	-27	128	114	75	Excellent
Texin® RxT65D	65D	IM/EX	25.0	52	210	-10	138	421	75	Excellent
Texin® RxT76D	76D	IM/EX	29.0	46	257.3	48	133	1467	62	Good
Texin® RxS285	85A	IM/EX/BF	5.3	38	88	-42	91	28	35	Excellent
Texin® RxS292	92A	IM/EX/BF	9.7	40	129	-15	88	73.1	27	Excellent

Thermoplastic polyurethanes are high-performance materials with a unique combination of useful properties that bridge the gap between rubber and hard thermoplastics. They are high-wear and abrasion resistant, highly elastic, and exhibit excellent low temperature flexibility otherwise only known from rubber products.

Texin® thermoplastic polyurethanes from Covestro are especially suitable for the Medical Industry. They can be used in a variety of applications including flexible tubing, catheters, connectors, film and fabric coatings, component housings, healthcare devices, wearables and more. In addition to the traditional benefits of thermoplastic polyurethanes, Texin® materials exhibit the following:

- Proven biocompatibility that meets requirements of ISO 10993-1
- No added plasticizer
- Low extractables
- Sterilizable
- Prevents tube blockages
- Excellent resistance to chemicals, lipids, cleaning agents and bacteria
- Excellent clarity for enhanced visual observation
- High Moisture Vapor Transmission Rate (MVTR) for comfortable gowns, linens, drapes and breathable wound dressings

Biocompatibility

These grades meet certain biocompatibility test requirements of ISO 10993-1: "Biological Evaluation of Health Care Devices" for categories including (1) skin contact (2) up to 24 hours contact with circulating blood, tissue, bone, and dentin, and (3) up to 30 days contact with mucosal membrane, compromised surfaces, and blood path, indirect.

These grades shall not be considered candidates for applications that exceed the requirements above unless Covestro explicitly agrees, in writing.



The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance, information and recommendations to determine to your own satisfaction whether our products, technical assistance and information are suitable for your intended uses and applications. This application specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by Covestro.

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