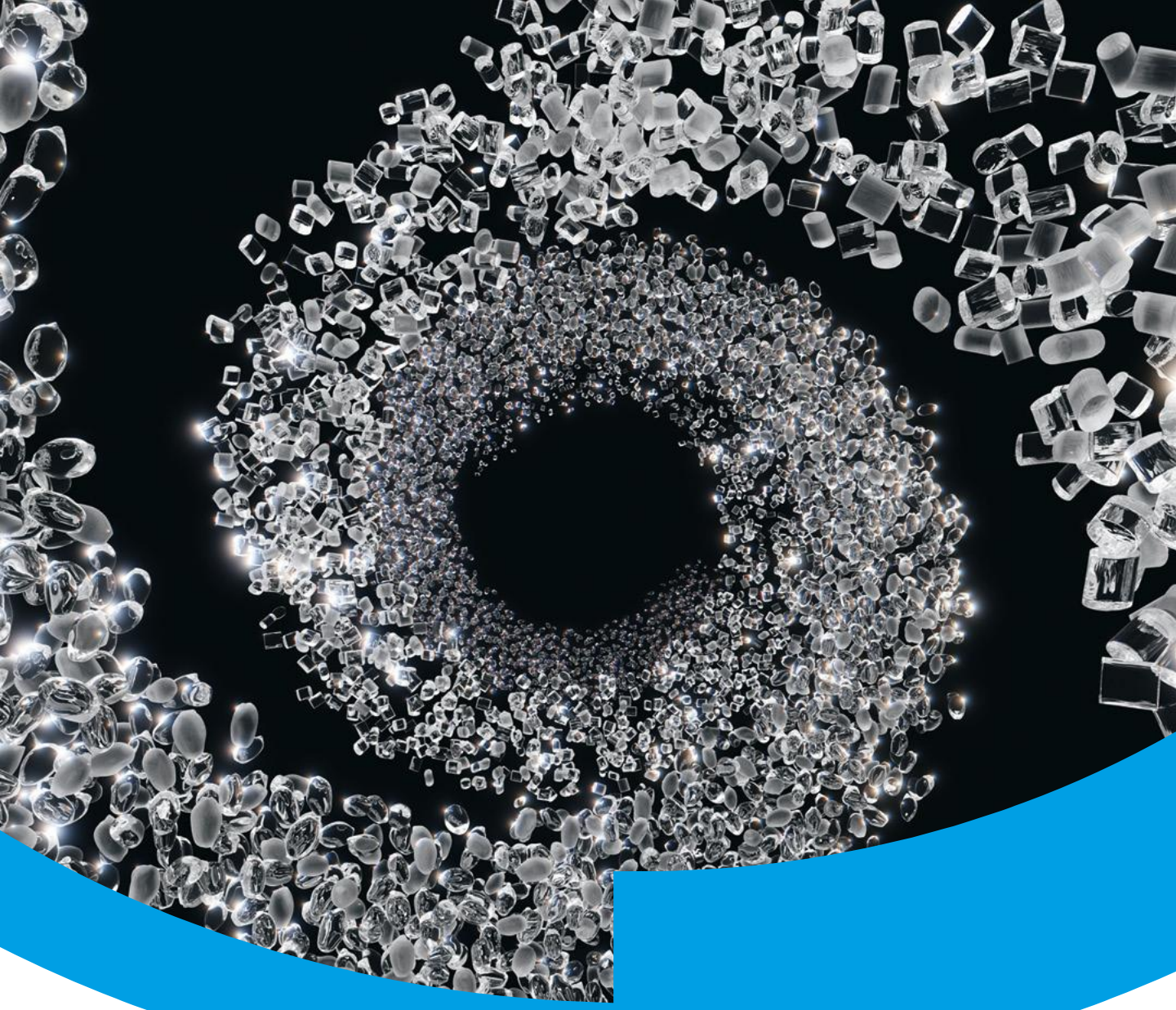


covestro

Texin® and Desmopan®

The Everything Specialist for Film & Sheet Applications

High-performance TPU for demanding film and sheet applications

Texin® and Desmopan® Thermoplastic Polyurethanes (TPU) from Covestro offer a powerful combination of elasticity, toughness, chemical resistance and flexibility, making them the materials of choice for advanced film and sheet applications where performance is paramount.

Why Texin® and Desmopan® TPU for film & sheet products?

- **Backward integrated supply chain:** Reliable global supply options
- **Processing versatility:** Compatible with extrusion, blown film, coating, calendering and thermoforming
- **Excellent tear strength:** Superior resistance to punctures and cuts compared to other elastomeric materials
- **Robust abrasion and impact resistance:** Exceptional durability for extended product life
- **Circular Economy (more sustainable) grades:** Growing portfolio of bio-circular, bio-based, and recycled versions with ISCC+ certification
- **Excellent optical clarity and UV stability:** Resists yellowing in outdoor environments
- **Natural adhesion properties:** Bonds to a wide range of substrates without the need for additional primers
- **Chemical, oil and solvent resistance:** Withstands exposure to aggressive substances
- **PFAS and plasticizer-free:** Performance without additives that could pose risk
- **Wide operating temperature range** flexible performance in extreme environments

Whether you are designing a new protective film, looking to enhance a multi-layer structure, or seeking to reduce environmental impact – we bring decades of materials expertise, application knowledge and testing capabilities to support your innovation.

Application areas

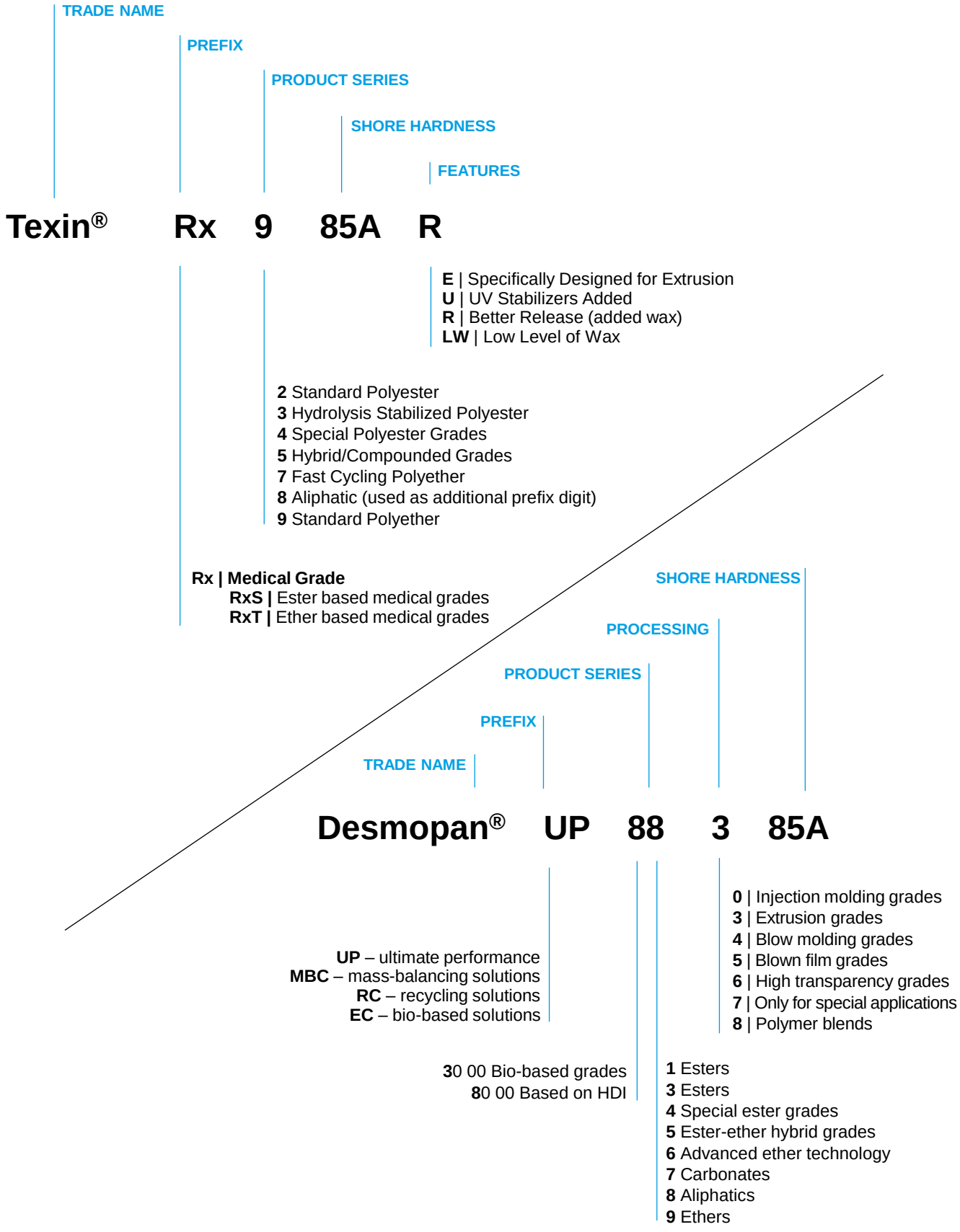
Automotive
interior films, air bladders, paint protection

Industrial
protective films, gaskets, CIPP, belting

Consumer & Lifestyle
sports gear, footwear, wearable electronics, apparel

Healthcare
dental, catheters, bladders, devices, patches

Product Nomenclature



Film & Sheet Material Index

Trade Name	Nominal Shore Hardness	Material Benefits	Ultimate Elongation*	Ultimate Tensile Strength*	Regulatory Compliance	
					Special Testing	FDA 1680 & 2600
ESTER: Superior abrasion resistance with dynamic properties, enhanced cut/tear strength, oil and grease resistance, suitable for high-mechanical stress applications						
Texin® 285A	85A	Flexible industrial components, excellent abrasion resistance	500%	5,500 psi	-	✓
Texin® 385AE	85A	Moisture-resistant applications requiring long-term durability with improved hydrolytic stability	500%	7,300 psi	-	-
Texin® 288A	88A	Slightly firmer applications requiring balanced flexibility and strength	500%	6,800 psi	-	✓
Texin® 292AE	92A	Specialized for extrusion applications (profiles, film, sheet), lamination, CIPP	510%	5,800 psi	-	✓
Texin® 392A	92A	Rigid industrial components requiring impact, stress resistance with improved hydrolytic stability	475%	7,400 psi	-	-
Texin® 250DE	95A / 50D	Rigid industrial components requiring impact resistance, mechanical parts, high-stress products	400%	6,700 psi	-	✓
ETHER: Excellent mechanical strength, wide operating temperature range (-40°C to 110°C), microbial resistance, superior hydrolytic stability						
Texin® 770A	70A	Soft touch over molding, flexible components, sealing applications, enhanced stretch, vibration dampening	770%	3,700 psi	NSF 61	✓
Desmopan® T-6075N	75A	Stretchable adhesive layer for flexible solutions, no sew applications	750%	2,900 psi	-	-
Texin® 983A, U	83A	Balanced flexibility and durability for devices, excellent for fabric coating, consumer products	670%	4,500 psi	NSF 61	✓
Texin® 985A, R, U	85A	General purpose grade with lower viscosity in processing and good wear resistance	590%	5,600 psi	NSF 61	✓
Desmopan® 9385AU	85A	Excellent UV stability for outdoor components including solar	597%	5,650 psi	-	-
Texin® 987AU	87A	Excellent UV stability for outdoor components and products	540%	6,000 psi	NSF 61	-
Texin® 990A, R	90A	Durable and moderate rigidity applications with good mechanical properties	520%	6,000 psi	NSF 61	✓
Desmopan® 9390AU	90A	Cold-weather flexibility with added UV resistance and all-season performance	500%	7,250 psi	-	-
Texin® 992A	92A	Industrial components and consumer products needing durability and wear resistance	500%	5,200 psi	NSF 61	✓
Texin® 993A	93A / 45D	Semi-rigid industrial components balancing impact resistance and stiffness	500%	6,000 psi	-	✓
Texin® 945DU	93A / 45D	UV stabilized for semi-rigid industrial components balancing impact resistance and stiffness	400%	6,700 psi	NSF 61	-
Desmopan® 9395AU	95A / 50D	General industrial components and consumer products	437%	7,600 psi	-	-
Texin® 950D, LW, U	50D	Excellent durability for hose, tubing, footwear, connectors, belting, good bonding properties	470%	7,100 psi	NSF 61	✓
Texin® 970DU	70D	High-rigidity components (78,000 psi flexural modulus) with added UV stability	320%	6,900 psi	-	-

Trade Name	Nominal Shore Hardness	Material Benefits	Ultimate Elongation*	Ultimate Tensile Strength*	Regulatory Compliance	
					Special Testing	FDA 1680 & 2600
MEDICAL: Biocompatible skin contact (ISO-10993-1), sterilizable by multiple methods, high purity with lower extractables for healthcare applications ranging from medical tubing to device housings						
Texin® RxS285	85A	Ester based for durable, soft flexible healthcare applications	500%	5,500 psi	ISO 10993-1	✓
Texin® RxS292	92A	Ester based, increased rigidity for connectors, device housings, semi-rigid medical components	510%	5,800 psi		✓
Texin® RxT70A	70A	Ether based, specialized for flexible medical tubing, cushioning components, soft touch interfaces	770%	3,700 psi		✓
Texin® RxT80A	83A	Ether based, versatile grade balancing flexibility and strength for healthcare applications	660%	3,900 psi		✓
Texin® RxT85A	85A	Ether based, optimized characteristics for complex healthcare components	610%	5,300 psi		✓
Texin® RxT90A	90A	Ether based, enhanced durability and hardness for demanding healthcare components	520%	5,900 psi		✓
Texin® RxT50D	50D	Ether based, semi-ridged medical grade with excellent dimensional stability, chemical resistance	480%	7,100 psi		✓
Texin® RxT65D	65D	Ether based, ridged medical grade with impact resistance and durability with 61,000 psi flexural modulus	370%	7,500 psi		-
Texin® RxT76D	76D	Ether based, highly-ridged medical grade for high-stress applications	280%	6,600 psi		✓
ALIPHATIC: Excellent UV resistance and color stability, good weatherability and optical clarity. Ideal for outdoor applications, transparent products, and components requiring aesthetic longevity						
Desmopan® 88385AU	87A	Excellent optical clarity, UV and hydrolysis resistance for surface and leading edge protection	575%	2,550 psi	-	-
Desmopan® UP 88385AU	87A	Enhanced with excellent optical clarity, UV and hydrolysis resistance with low extractables for PPF	675%	2,550 psi	-	-
Desmopan® UP 88395AU	92A	Higher-rigidity and enhanced with excellent optical clarity, UV and hydrolysis resistance with low extractables	575%	2,200 psi	-	-
Texin® 8955DE	55D	UV stable for optical applications requiring low-temperature flexibility, good mechanical properties	350%	6,200 psi	-	-
SPECIALIZED GRADES: Unique materials with specialized chemistry for specific market applications						
Desmopan® 5377A	77A	Ether/Ester hybrid grade, hydrolytic stabilized, highly flexible and excellent oil and abrasion resistance	644%	3,900 psi	-	-
Desmopan® 87395AU	95A / 50D	Carbonate grade, excellent optical clarity and UV stable for long-term weatherability and hydrolysis resistance	370%	10,150 psi	-	-

*all physical testing performed on 2mm injection molded plaque
E = Enhanced for Extrusion
R = Extra release, processing aid
U = UV Stabilized
LW = Low wax for improved adhesion

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