Texin® 8955DE

Characterization

Texin 8955DE is an aliphatic polyether-based thermoplastic polyurethane of approximately 55D Shore hardness. It can be processed by injection molding or extrusion.

Properties / Applications

Texin 8955DE resin is characterized by outstanding clarity, inherent resistance to hydrolysis, a high moisture vapor transmission rate, weatherability and flexibility. It is stabilized against degradation due to heat and UV exposure. Typical applications of Texin 8955DE include coated fabrics, tarps and rain gear, optical lenses, flexible windows and outdoor signage. As with any product, use of Texin 8955DE resin in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

Storage, Drying and Regrind Usage

Texin thermoplastic polyurethane resins are hygroscopic and will absorb ambient moisture. The resins should remain in their sealed containers and stored in a dry area. Storage temperatures should not exceed 86°F (30°C). Unused resin from opened containers, or reground material that is not to be used immediately, should also be stored in sealed containers under cool and dry conditions.

Prior to processing, Texin 8955DE resin must be thoroughly dried for a minimum of 4 hours in a pre-heated desiccant dehumidifying hopper dryer to a moisture content of less than 0.03%. Hopper inlet air temperature should be 160-180°F (71-82°C), the inlet air dew point should be -20°F (-29°C) or lower.

Where end-use requirements permit, up to 20% Texin resin regrind may be used with virgin material. Regrind material must be generated from properly molded/extruded parts, sprues, runners, trimmings, and/or films. Degraded or discolored material may not be used for regrind. All regrind material must be free of contamination and thoroughly blended with virgin material prior to drying and processing. Finish parts containing regrind must be tested to ensure that end-use requirements are fully met.

Document contains important information and must be read in its entirety.

Edition 2019-04-01

2026-02-18 11:00:00 Distributed by Mito polimeri

Texin® 8955DE

Injection Molding and Extrusion Conditions

Typical starting conditions for injection molding and extrusion are noted below. Actual processing conditions will depend on machine size, mold design, material residence time, shot size, part geometry, etc.

Typical Injection Molding Conditions

Barrel Temperature: Rear	330º-350ºF (166º-177ºC)
Barrel Temperature: Middle	335º-350ºF (168º-177ºC)
Barrel Temperature: Front	335º-350ºF (168º-177ºC)
Barrel Temperature: Nozzle	355º-365ºF (179º-185ºC)
Melt Temperature	345°–360°F (174°–182°C)
Mold Temperature	60°–100°F (16°–38°C)
Injection Pressure	8,000 - 15,000 psi
Hold Pressure	60 - 80% of Injection Pressure
Back Pressure	800 psi max.
Screw Speed	40 - 80 rpm
Injection Speed	Slow to Moderate
Cushion	1/8 in max

Extrusion and Blow Molding Profile

Typical Temperature Profile for Extrusion

Rear (Feed)	320º - 335ºF (160º - 168ºC)
Middle (Transition)	325º - 340ºF (163º - 171ºC)
Front (Meter)	325º - 340ºF (163º - 171ºC)
Die	325º - 340ºF (163º - 171ºC)
Melt	325º - 340ºF (163º - 171ºC)

Document contains important information and must be read in its entirety.

Edition 2019-04-01

2026-02-18 11:00:00 Distributed by Mito polimeri

Texin® 8955DE

Health and Safety Information

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling this product. Before working with this product, you must read and become familiar with the available information on its risks, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., safety data sheets and product labels. For further information contact your Covestro LLC representative or the Product Safety and Regulatory Affairs Department in Pittsburgh, PA.

Typical Properties* for Natural Resin

Property	ASTM Test Method (Other)	Texin 8955DE Resin U.S. Units	Texin 8955DE Resin S.I. Units
General			
Specific Gravity	D 792 (ISO 1183)	1.093	1.093
Shore Hardness	D 2240 (ISO 868)	55D	55D
Taber Abrasion: H-18, 1,000-g Load, 1,000 Cycles	D 3489 (ISO 4649)	68 mg Loss	68 mg Loss
Bayshore Resilience	D 2632	53%	53%
Mold Shrinkage, 100-mil thickness	D 955 (ISO 2577)		
Flow Direction		0.008 in/in (mm/mm)	0.008 in/in (mm/mm)
Cross-Flow Direction		0.008 in/in (mm/mm)	0.008 in/in (mm/mm)
Mechanical			
Tensile Strength	D 412 (ISO 37)	6,200 lb/in^2	42.8 MPa
Tensile Stress at 100% Elongation	D 412 (ISO 37)	2,200 lb/in^2	15.2 MPa
Tensile Stress at 300% Elongation	D 412 (ISO 37)	5,000 lb/in^2	34.5 MPa
Ultimate Elongation	D 412 (ISO 37)	350%	350%
Flexural Modulus:	D 790 (ISO 178)		
158°F (70°C)		900 lb/in^2	6.2 MPa
73°F (23°C)		20,400 lb/in^2	140.7 MPa
Tear Strength, Die C	D 624 (ISO 34)	780 lbf/in	137 kN/m
Thermal			
Glass Transition Temperature (Tg)	(DMA)[a]	52°F	11°C
Vicat Softening Temperature, Rate A (0.125-in, 10N, 0.833°C/min)	D 1525 (ISO 306)	109°F	43°C

** These items are provided as general information only. They are approximate values and are not part of the product specifications.*

a DMA – Dynamic Mechanical Analysis

Document contains important information and must be read in its entirety.

Edition 2019-04-01

2026-02-18 11:00:00 Distributed by Mito polimeri

Texin® 8955DE

Regulatory Compliance Information	Some of the end uses of the product described in this bulletin may require compliance with applicable regulations, such as EPA, FDA, USDA, or CPSC regulations. If you have any questions on the regulatory status of this product, contact your Covestro representative or the Product Safety and Regulatory Affairs Department in Pittsburgh, PA.
Note	***The purchaser/user agrees that Covestro LLC reserves the right to discontinue this product without prior notice.***

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 utilize our products, technical assistance and information 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 us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with any claim of any patent relative to any material or its use. No license is implied or in fact granted under the claims of any patent.

Editor: Covestro LLC
1 Covestro Circle
Pittsburgh, Pennsylvania 15205
United States
www.covestro.com

Contact:
TPU Single Point of Contact
e-mail: tpuinfo@covestro.com

Document contains important information and must be read in its entirety.

Edition 2019-04-01

2026-02-18 11:00:00 Distributed by Mito polimeri