

Exablend® TPU S 95-A

Technical DataSheet | Supplied by Material Wizard

Exablend® TPU S 95-A

Exablend® TPU S 95-A is a newly developed ester-based thermoplastic polyurethane (TPU) operating at the high-hardness boundary of the Shore A scale. The poly(butylene adipate) / MDI / BDO chain architecture produces a dense urethane network with pronounced hard-segment crystallinity, delivering 42 MPa tensile strength and a remarkably high elongation at break of 572% – a combination rare in the 95A hardness class. E-modulus of 108 MPa defines the rigid-yet-elastic working point demanded by dynamic industrial applications. Tear resistance of 60 N/mm (ISO 34-1) and outstanding abrasion behaviour make this grade the preferred choice for conveyor components, wear pads, and drive profiles under continuous cyclic stress. Very good low-temperature flexibility, good resistance to oils, greases, and solvents complete the performance envelope. As a polyester-based TPU, mandatory pre-drying to <0.02% residual moisture is required prior to processing.

Product Type

ISO 16365-1:2014

TPU > TPU-ARES

Applications/ Recommended for

Seals and Gaskets

Wear Pads and Liners

Industrial Rollers

Sporting Goods

Conveyor Belt Covers

Cable Sheathing

Hydraulic Hoses

Protective Profiles

Key Features

Superior wear and abrasion resistance

High tensile strength (42 MPa) with >570% elongation

Pronounced damping and elastic recovery behaviour

Excellent low-temperature flexibility

Good resistance to oils, greases, and solvents

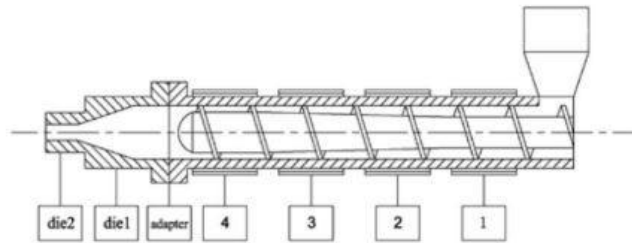
Halogen-free, recyclable

Exablend® TPU S 95-A Typical Properties

Physical	Value & Unit	Test Condition	Test Method
Hardness	95 (±3)	Shore A (after 3 s)	ISO 48-4
Hardness	23 (±1.5)	Shore D (after 3 s)	ISO 48-4
Tear Force	250 N		ISO 1131
Mechanical	Value & Unit	Test Condition	Test Method
Elongation at Tensile Strength	570 %	23°C	ISO 37
Tensile Strength	42 MPa	23°C	DIN 527
Elongation at Break	572 %	23°C	DIN 527
Tear Resistance	60 N/mm		ISO 34-1
Modulus of Elasticity (E-Modulus)	108 MPa		ISO 527

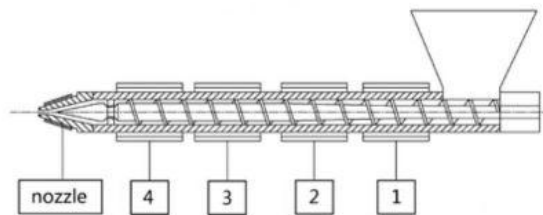
Processing Recommendations

Processing Conditions > Injection Molding:



	Zone1	Zone2	Zone3	Zone4	Adaptor	Die1	Die2
°C	180	185	190	195	200	205	210

Processing Conditions > Extrusion:



	Zone1	Zone2	Zone3	Zone4	Die Head
°C	180	185	190	195	200

Processing Recommendations > Drying:

Our materials are supplied pre-dried in moisture-guarded bags. However, dry materials will rapidly absorb moisture when exposed to the atmosphere. Pre-drying at 80–100 °C for 2–3 h in a circulating air or dehumidified air dryer is mandatory before processing. Residual moisture must be below 0.02%.

Disclaimer

Standard Disclaimer

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 and information to determine to your own satisfaction whether they 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. All information and technical assistance is given without warranty or guarantee and are subject to change without notice. It is expressly understood and agreed that you assume and hereby 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 patents covering any material or its use. No license is implied or in fact granted under the claims of any patent. Typical Properties data is provided as general information only. Property values are approximate and are not part of the product specifications.

Contact Information

Email:	yyekimov@gmail.com
Website:	materialwizard.com.ua
Marketplace:	polyamide.prom.ua
Phone:	+ 38 050 323 23 21