

Advantages of products made of thermoplastic polyurethane TM Epalan^{RT}:

Durability

Elasticity

Impactresistance

Lower weight and excellent vibration absorption

The use of thermoplastic polyurethane allows to decrease the weight of the product by up to 50%, to reduce the level of vibration and system noise of operating mechanisms in comparison with metals.

Compatibility with other materials

TPU is an excellent electrical insulator

Possibility of recycling

RT-Epaflex LLC is part of a diversified holding specializing in the production and supply of thermoplastic polyurethane and composite polymer materials based on it. A modern production base and high-quality raw materials make it possible to manufacture products that are not inferior in quality to analogues of world manufacturers.



RT-EPAFLEX

Thermoplastic polyurethane (TPU) is an elastomer with the highest potential for innovation. Improving processing properties and processing methods make polyurethane elastomer more and more popular and expand the possibilities for its application.

RT-EPAFLEX LLC is your reliable partner, supplier of high-quality wear-resistant thermoplastic polyurethane and composite polymer materials of domestic production!

This unique material combines wear resistance, strength, and elasticity. Produced based on simple and compound polyesters. Supplied as a transparent, ready-to-process rounded granulate.



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The properties of thermoplastic polyurethane TM Epalan^{RT} can vary greatly depending on its purpose. By changing the recipe and adjusting the technological process, we produce soft and elastic, rigid and very durable material.

Main areas of application of thermoplastic polyurethane TM Epalan^{RT}:

Vehicle manufacturing industry
(silent blocks, shafts, rollers, bushings, oil and petrol resistant auto components)

Shoe industry
(artificial leather, shoe soles, heeltaps and heels)

Physical and mechanical properties of thermoplastic polyurethane TM Epalan^{RT}:

Hardness 60 to 95 Shore A and 45 to 65 Shore D

Temperature range during operation: from -60°C to +80°C, short-term up to +100°C

High abrasion resistance.

TPU products are more durable than rubbers, plastics, and in some applications even metals.

Elasticity and resistance to repeated bending

TPU products are good at resisting repeated bending without breaking. The high strength of TPU allows them to be used in thin layers to increase elasticity in dynamic applications.

Increased tensile and tear resistance

TPU products take their original shape and retain their physical and mechanical properties after exposure to loads.

Elasticity in a wide range of hardness.

Resistant to repeated deformation and bending without breaking. Elongation up to 650%.

High resistance to adverse weather conditions - moisture, ozone, combined effects of friction and corrosive media.

TYPICAL PROPERTIES	METHOD	Unit	COMPOUND POLYESTER														SIMPLE POLYESTER	
			65A2P30	65A2S10	65A2B10	65A6S20	75A2S10	75A2R10	80A2S10	85A2S10	85A2R10	90A2S10	90A2R10	95A2S10	50D2S10	60D2S10		85A7S10
Hardness Sh A	GOST 24621	усл. ед.	60	65	65	65	75	75	80	85	85	90	90	95				85
Hardness Sh D	GOST 24621	усл. ед.													50	60		
Density	GOST 15139	г/см ³	0,69	1,15	1,17	1,15	1,17	1,18	1,19	1,2	1,2	1,2	1,2	1,21	1,22	1,23		1,1
Tensile strength	GOST 11262	МПа	15	30	30	35	40	35	40	45	35	48	40	55	55	55		45
Elongation at break	GOST 11262	%	600	750	800	750	700	650	650	600	650	550	600	500	450	400		600
Tear resistance	GOST 262	кН/м	20	65	70	70	80	90	95	110	100	120	120	130	150	180		80
Sliding abrasion resistance	GOST 23509	мм ³	130	30	40	30	30	40	30	40	40	40	50	40	40	70		30
PROCESS																		
Injection moulding			•	•	•	•	•		•		•	•	•	•	•	•		
Extrusion moulding						•	•	•	•	•	•	•	•	•	•			
Shoes			•	•	•		•									•		
CHARACTERISTICS																		
Plasticized			•	•	•	•	•											



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