

Technical Data Sheet

Type: ESTANE® R190A is a Shore 93A, polyether type thermoplastic polyurethane (TPU).

Uses: Injection Molding, Extrusion

Physical Properties	Value (Metric)	Unit	Test Method
Hardness	93	Shore A	ASTM D2240
	47	Shore D	
Specific Gravity	1.11	g/cm ³	ASTM D792
Mechanical			
Tensile Stress:		kgf/cm ²	ASTM D412
- 100 % Elongation	100		
- 300 % Elongation	170		
Tensile Strength	370	kgf/cm ²	ASTM D412
Ultimate Elongation	680	%	ASTM D412
Tear Resistance (Die C)	110	kgf/cm	ASTM D624
Abrasion Loss	25	mm ³ loss	ISO 4649
Compression Set			ASTM D395
At 23°C X22hr	15	%	
At 70°C X22hr	45	%	
Mold Shrinkage	0.007	m/m	ASTM D955
Thermal			
Vicat Softening Temperature	125	°C	ASTM D1525

*Test samples were annealed at 100°C and 24 hours at room temperature before testing.

**These are typical values and should not be used for specifications.

Injection Molding Guide

- These settings are to be used only as a guide. This is a typical injection molding temperature profile based on the Test Machine (conditions based on a 75 ton machine with a general purpose screw – L/D 17 – Ø 35mm). The optimal run conditions for specific equipment will vary depending on the machine and mold design.

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