

## Technical Data Sheet

**Type:** ESTANE® R180A is a Shore 83A, polyether type thermoplastic polyurethane (TPU).

**Uses:** Injection Molding, Extrusion

Physical Properties	Value (Metric)	Unit	Test Method
Hardness	83	Shore A	ASTM D2240
Specific Gravity	1.08	g/cm <sup>3</sup>	ASTM D792
<b>Mechanical</b>			
Tensile Stress:		kgf/cm <sup>2</sup>	ASTM D412
- 100 % Elongation	50		
- 300 % Elongation	80		
Tensile Strength	250	kgf/cm <sup>2</sup>	ASTM D412
Ultimate Elongation	790	%	ASTM D412
Tear Resistance (Die C)	80	kgf/cm	ASTM D624
Compression Set	35		ISO 4649
At 23°C X22hr		%	ASTM D395
At 70°C X22hr	15	%	
Mold Shrinkage	45	m/m	ASTM D955
<b>Thermal</b>			
Vicat Softening Temperature	82	°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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