

Estane® S190A TPU

TPU

Lubrizol Advanced Materials Spain S.L.

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Mold Shrinkage, MD	0.009	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Abrasion resistance	30	mm ³	ISO 4649
ASTM Data			
Modulus at 100% Elongation	9.32	MPa	ASTM D 412
Modulus at 300% Elongation	6.21	MPa	ASTM D 412
Shore A Hardness	92	-	ASTM D 2240
Shore D Hardness	48	-	ASTM D 2240
Tear Strength	137	kN/m	ASTM D 624
Compression Set , 22 hr @ 73 °F	15	%	ASTM D 395
Compression Set , 22 hr @ 158 °F	40	%	ASTM D 395

Thermal properties	Value	Unit	Test Standard
ASTM Data			
Vicat Temperature	110	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Density	1210	kg/m ³	ASTM D 792

Characteristics**Processing**

Injection Molding

Regional Availability

North America, Europe, Asia Pacific

Certifications

Food contact, Food approval FDA 21 CFR