



Lubrizol LifeSciences

# Pellethane® 2363-90A TPU

**Type:** Pellethane 2363-90A is a thermoplastic polyurethane elastomer

**Features:** USP Class VI<sup>(a)</sup>

Properties	Test Method	Values <sup>(1)</sup>
<b>Physical</b>		
Specific Gravity	ASTM D 792	1.14
Mould Shrinkage (1.6 mm [1/16"] thick plaques), %		
MD		0.5-0.6
TD		0.5-0.6
<b>Mechanical</b>		
Durometer Hardness, Shore	ASTM D 2240	90A
Tensile Modulus		
50% Elongation, MPa (psi)	ASTM D 412	8.3 (1200)
100% Elongation, MPa (psi)		11.7 (1700)
300% Elongation, Mpa (psi)		20.7 (3000)
Ultimate Tensile Strength, MPa (psi)	ASTM D 412	40.3 (5850)
Ultimate Elongation, %	ASTM D 412	500
Elongation Set After Break, %	ASTM D 412	30
Tear Strength, Die "C", KN/m (pli)	ASTM D 624	100 (570)
Compression Set		
22 hours at 25°C (77°F), %	ASTM D 395	25
22 hours at 70°C (158°F), %	Method B	30
Taber Abrasion Resistance		
1000g, 1000 cycles; H-22 wheel (coarser), mg	ASTM D 1044	10
Flexural Modulus, MPa (psi)	ASTM D 790	75.8 (11,000)
<b>Thermal</b>		
Vicat Softening Temperature, °C ( °F)	ASTM D 1525	110 (230)
Coefficient of Linear Thermal Expansion, 10 <sup>-6</sup> mm/mm/ °C	ASTM D 696	157 (87, 10 <sup>-6</sup> in/in/ °F)
Glass Transition Temperature, °C ( °F)	DSC	-30 (-22)
<b>Rheological</b>		
Melt Index, 224 °C, 2160 g, g/10 min	ASTM D 1238	25
<b>Processing Information</b>		
Recommended Drying Temperature, °C ( °F)		90-105 (190-220)
Recommended Melt Temperature (Molding), °C ( °F)		205-220 (400-430)
Recommended Melt Temperature (Extrusion), °C ( °F)		-
Recommended Mold Temperature, °C ( °F)		15-60 (60-140)

(a) This resin has undergone biocompatibility testing in accordance with US Pharmacopoeia XXII Class VI guidelines

<sup>†</sup> Typical Values, not to be construed as specifications. Users should confirm by their own tests.

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