

# Pellethane® 2363-55D TPU

**Type:** Pellethane 2363-55D is a thermoplastic polyurethane elastomer

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

Properties	Test Method	English		S.I.	
		Values <sup>†</sup>	Units	Values <sup>†</sup>	Units
<b>Physical <sup>(1)</sup></b>					
Specific Gravity	ASTM D 792	1.15		1.15	
Mold Shrinkage (1/16" [1.6mm] thick plaques)					
MD		0.5-0.6	%	0.5-0.6	%
TD		0.4-0.8	%	0.4-0.8	%
<b>Mechanical <sup>(2)</sup></b>					
Durometer Hardness, Shore	ASTM D 2240	55	D	55	D
Tensile Modulus					
50% elongation	ASTM D 412	1900	psi	13.1	MPa
100% elongation		2500	psi	17.2	MPa
300% elongation		4280	psi	29.5	MPa
Ultimate Tensile Strength	ASTM D 412	6900	psi	47.5	MPa
Ultimate Elongation	ASTM D 412	390	%	390	%
Elongation Set After Break	ASTM D 412	30	%	30	%
Tear Strength, Die C	ASTM D 624	650 PLI		114	KN/m
Compression Set, Method B					
22 hrs @ 25°C (77°F)	ASTM D 395	25	%	25	%
22 hrs @ 70°C (158°F)		30	%	30	%
Taber Abrasion Resistance					
1000g, 1,000 cycles: H-22 wheel (coarser)	ASTM D 1044			80	mg
Flexural Modulus	ASTM D 790	25,000	psi	172	MPa
<b>Thermal</b>					
Vicat Softening Point (120°C/hr, 9.8N)	ASTM D 1525	229	°F	109	°C
Coefficient of Linear Thermal Expansion	ASTM D 696	79.4 10 <sup>-6</sup>	in/in/°F	143 10 <sup>-6</sup>	mm/mm/°C
Glass Transition Temperature	DSC	-	°F	-	°C
<b>Rheological Properties</b>					
Melt Index, 224°C, 2.16kg	ASTM D 1238	-	-	10	kg/10 min
<b>Processing Conditions (Typical)</b>					
Recommended Drying Temperature		190-220	°F	88-104	°C
Recommended Melt Temperature (Molding)		410-440	°F	210-227	°C
Recommended Melt Temperature (Extrusion)		-	°F	-	°C
Recommended Mold Temperature		60-140	°F	16-60	°C

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

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

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