Lubrizol LifeSciences

TECHNICAL DATA SHEET

Pellethane® 2363-65D TPU

Type: Pellethane 2363-65D is a thermoplastic polyurethane elastomer

Features: USP Class VI[(a)]

Properties	Test Method	Values[(1)]
Physical		
Specific Gravity	ASTM D 792	1.17
Mould Shrinkage (1.6 mm [1/16"] thick plaques), % MD TD		 0.7-0.9 0.8-0.9
Mechanical		
Durometer Hardness, Shore	ASTM D 2240	62D
Tensile Modulus 50% Elongation, MPa (psi) 100% Elongation, MPa (psi) 300% Elongation, Mpa (psi)	ASTM D 412	 16.2 (2350) 20.0 (2900) 34.5 (5000)
Ultimate Tensile Strength, MPa (psi)	ASTM D 412	44.5 (6460)
Ultimate Elongation, %	ASTM D 412	450
Elongation Set After Break, %	ASTM D 412	50
Tear Strength, Die "C", KN/m (pli)	ASTM D 624	193 (1100)
Compression Set 22 hours at 25°C (77°F), % 22 hours at 70°C (158°F), %	ASTM D 395 Method B	 30 35
Taber Abrasion Resistance, 1000g, 1000 cycles; H-22 wheel (coarser), mg	ASTM D 1044	105
Flexural Modulus, MPa (psi)	ASTM D 790	221 (32,000)
Thermal		
Vicat Softening Temperature, ºC (ºF)	ASTM D 1525	107 (225)
Coefficient of Linear Thermal Expansion, 10^{-6}mm/mm/ ºC	ASTM D 696	104 (57.5)10^{-6} in/in/ ºF
Glass Transition Temperature, ºC (ºF)	DSC	-
Rheological		
Melt Index, 224 ºC, 5.0kg, g/10 min	ASTM D 1238	40
Processing Information		
Recommended Drying Temperature, ºC (ºF)		100-110 (210-230)
Recommended Melt Temperature (Molding), ºC (ºF)		210-225 (410-440)
Recommended Melt Temperature (Extrusion), ºC (ºF)		205-220 (400-430)
Recommended Mold Temperature, ºC (ºF)		15-60 (60-140)

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

(1) Typical Values, not to be construed as specifications. Users should confirm results by their own tests.

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