

Isoplast® 2510 ETPU

Type: Isoplast® 2510 is an engineering thermoplastic polyurethane resin

Features: USP Class VI⁽¹⁾

Properties	Test Method	Values ⁽¹⁾
Physical		
Mould Shrinkage, %	ASTM D 955	0.4-0.6
Water Absorption, 24 hours at 23°C, %	ASTM D 570	0.17
Specific Gravity, g/cm ³	ASTM D 792	1.19
Mechanical		
Tensile Strength at Yield, MPa	ASTM D 638	48
Tensile Strength at Break, MPa	ASTM D 638	48
Elongation at Yield, %	ASTM D 638	6
Elongation at Break, %	ASTM D 638	160
Tensile Modulus, MPa	ASTM D 638	1,500
Flexural Strength, MPa	ASTM D 790	68
Flexural Modulus, MPa	ASTM D 790	1,800
Izod Impact Strength 3.2 mm; 23°C, J/m 3.2 mm; -40°C, J/m 6.4 mm, 23°C, J/m	ASTM D 256	1,280 160 1,100
Instrumented Dart Impact @ 23°C, J @ -29°C, J	ASTM D 3763	68 68
Rockwell Hardness R Scale M Scale	ASTM D648	116 -
Thermal		
Heat Deflection Temperature Under Load HDT/B (0.46 MPa) unannealed, °C HDT/B (0.46 MPa) annealed, °C HDT/A (1.8 MPa) unannealed, °C HDT/A (1.8 MPa) annealed, °C	ASTM D 648	71 82 60 77
Vicat Temperature, °C	ASTM D 1525	89
Coefficient of Linear Thermal Expansion	ASTM D 696	8.1 K ⁻¹ x 10 ⁻⁵



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Properties	Test Method	Values ⁽¹⁾
Optical		
Gardner 60° Gloss, %	ASTM D 823	100
Light Transmission, %	ASTM D 1003	-
Yellowness Index	ASTM D 1925	-
Processing Information		
Recommended Drying Temperature, °C		85-90
Recommended Melt Temperature, °C		220-245
Recommended Mould Temperature, °C		65-80

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

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



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