

Isoplast® 2510 ETPU

Type: Isoplast® 2510 is an engineering thermoplastic polyurethane resin

Features: USP Class VI¹

Properties	Test Method	Values ²
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 D 785	116 -

Properties	Test Method	Values ²
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

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 and/or ISO 10993 guidelines

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