



3D COMPOSITES

Transforming ideas into 3-dimensional objects

PC-ISO

PC-ISO (polycarbonate-ISO), an industrial thermoplastic, which in its raw state, is biocompatible and can be gamma or EtO sterilized. PC-ISO is commonly used in food and drug packaging and medical device manufacturing because of the material's strength and medical compatibility.

Color options: White, Translucent Natural

MECHANICAL PROPERTIES	TEST METHOD	ENGLISH	METRIC
Tensile Strength (Type 1, 0.125", 0.2"/min)	ASTM D638	8,300 psi	37 MPa
Tensile Modulus (Type 1, 0.125", 0.2"/min)	ASTM D638	289,800 psi	2,000 MPa
Tensile Elongation (Type 1, 0.125", 0.2"/min)	ASTM D638	4%	4%
Flexural Strength (Method 1, 0.05"/min)	ASTM D790	13,100 psi	90 MPa
Flexural Modulus (Method 1, 0.05"/min)	ASTM D790	310,400 psi	2,100 MPa
IZOD Impact, notched (Method A, 23°C)	ASTM D256	1.6 ft-lb/in	86 J/m
IZOD Impact, un-notched (Method A, 23°C)	ASTM D256	1 ft-lb/in	53 J/m



THERMAL PROPERTIES	TEST METHOD	ENGLISH	METRIC
Heat Deflection (HDT) @ 66 psi	ASTM D648	271°F	133°C
Heat Deflection (HDT) @ 264 psi	ASTM D648	260°F	127°C
Glass Transition Temperature (Tg)	DMA (SSYS)	322°F	161°C
Vicat Softening	ISO 306	282°F	139°C
Melt Point	-----	Not Applicable	Not Applicable

ELECTRICAL PROPERTIES	TEST METHOD	VALUE RANGE
Volume Resistivity	ASTM D257	1.5x10e14 - 8..0x10e13 ohm-cm
Dielectric Constant	ASTM D150-98	3.0 - 2.8
Dissipation Factor	ASTM D150-98	.0009 - .0005
Dielectric Strength	ASTM D149-09, Method A	370 - 70 V/mil

OTHER	TEST METHOD	VALUE
Specific Gravity	ASTM D792	1.2
Flame Classification	UL 94	HB