

ABS-M30i

ABS-M30i is a high strength material well suited for the medical, pharmaceutical and food packaging industries.

Parts manufactured with ABS-M30i material are biocompatible (ISO 10993 USP Class VI)* and can be gamma or EtO sterilized. ABS-M30i gives you biocompatible parts with

excellent mechanical properties that are well suited for conceptual modeling, functional prototyping, manufacturing tools and end-use-parts.

Mechanical Properties	Test Method	Metric XZ Axis	Metric ZX Axis
Tensile Strength, Yield (Type 1, 0.125", 0.2"/min)	ASTM D638	31 MPa	26 MPa
Tensile Strength, Ultimate (Type 1, 0.125", 0.2"/min)	ASTM D638	32 MPa	28 MPa
Tensile Modulus (Type 1, 0.125", 0.2"/min)	ASTM D638	2,230 MPa	2,180 MPa
Tensile Elongation at Break (Type 1, 0.125", 0.2"/min)	ASTM D638	7%	2%
Tensile Elongation at Yield (Type 1, 0.125", 0.2"/min)	ASTM D638	2%	1%
Flexural Strength (Method 1, 0.05"/min)	ASTM D790	60 MPa	48 MPa
Flexural Modulus (Method 1, 0.05"/min)	ASTM D790	2,060 MPa	1,760 MPa
Flexural Strain at Break (Method 1, 0.05"/min)	ASTM D790	4%	3.5%
IZOD, nothed (Method A, 23°C)	ASTM D256	128 J/m	-
IZOD un-notched, Method A, 23°C)	ASTM D256	300 J/m	-

Thermal Properties	Test Method	Metric
Heat Deflection (HDT) @ 66 psi, 0.125" unannealed	ASTM D648	96°C
Heat Deflection (HDT) @ 264 psi, 0.125" unannealed	ASTM D648	82°C
Vicat Softening Temperature (Rate B/50)	ASTM D1525	99°C
Glass Transition (Tg)	DSC (SSYS)	108°C
Coefficient of Thermal Expansion (flow)	ASTM E831	8.82 ⁻⁰⁵ mm/mm/°C
Coefficient of Thermal Expansion (xflow)	ASTM E831	8.46 ⁻⁰⁵ mm/mm/°C
Melting Point	Not Applicable	Not Applicable