

Mitsubishi Chemical Advanced Materials Inc.
2710 American Way, Fort Wayne IN 46809, USA
T +1 260 479 4100
mcam.com

MediTECH® Zeniva® Product Specification

Product Description PEEK Rod and Plate shapes for medical implant

Incoming Resin Requirements

CHARACTERISTICS	UNITS	SPECIFICATION	METHOD	REQUIREMENT
Lot Number for Resin	N/A	Reported	N/A	Traceability
Cytotoxicity for Resin	N/A	Pass / Fail	ISO 10993:5	NA – report only
PhysioChemical for Resin	N/A	Pass / Fail	ISO 10993:18	NA – report only
IR Spectrum Comparison to PEEK for Resin	N/A	Pass / Fail Per ASTM F2026	N/A	ASTM F2026
Total Heavy Metals	N/A	< 100 Per ASTM 2026, reported as meeting ASTM F2026	Solvay ICP and XRF	ASTM F2026
Glass Transition Temperature T _g	°C	125 – 165 Per ASTM F2026	ASTM D3418	ASTM F2026
Melt Temperature T _m	°C	320 – 360 Per ASTM F2026	ASTM D3418	ASTM F2026
Recrystallization T _c	°C	260 – 320 Per ASTM F2026	ASTM D3418	ASTM F2026
Crystallinity	%	Reported	ASTM D3418	NA – report only
Melt Viscosity@1000 sec-1, 400°C	Pa.s	380-500	ASTM D3835	NA – report only

PEEK Rod and Shape Requirements

CHARACTERISTICS	UNITS	SPECIFICATION	METHOD	REQUIREMENT
Density	kg/m ³	1280-1320	ASTM D792 or ASTM D1505	ASTM F2026
Tensile Strength at Yield	MPa	Min 90	ASTM D638	ASTM F2026
Tensile Strength at Break	MPa	Min 70	ASTM D638	ASTM F2026
Elongation at Break	%	Min 5	ASTM D638	ASTM F2026
Elongation at Yield	%	Min 4	ASTM D638	NA – report only
Flexural Strength	MPa	Min 110	ASTM D790	ASTM F2026
Flexural Modulus	GPa	Min 3	ASTM D790	ASTM F2026
Tensile Modulus	GPa	Min 3.3	ASTM D638	NA – report only
Impact Strength, notched Izod *	J/m	Min 50	ASTM D256	ASTM F2026
Crystallinity	%	Reported	N/A	NA – report only

*Note – Notched Izod is not performed on 6mm or 9mm rod as the size does not allow sampling