

## Westlake Plastics MediPEEK IM Polyetheretherketone for Medical Applications

Category : Polymer , Thermoplastic , Polyketone , Polyetheretherketone (PEEK)

### Material Notes:

MediPEEK-IM is a high performance semi-crystalline thermoplastic designed for long term body contact as an implantable material. It is USP Class VI and compliant to ASTM F2026. It has excellent sterilizability and has been extensively tested to ISO-10993 requirements. Applications Include: Spinal Cages Fixation Rods Orthopedic Implants Ophthalmic Tools Surgical Instruments Diagnostic Devices Advantages of MediPEEK-IM: Biocompatibility Mechanical Strength/Toughness Sterilizable Radio Translucent ASTM F2026 Compliant ISO-10993 Information provided by Westlake Plastics Company.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Westlake-Plastics-MediPEEK-IM-Polyetheretherketone-for-Medical-Applications.php](http://www.lookpolymers.com/polymer_Westlake-Plastics-MediPEEK-IM-Polyetheretherketone-for-Medical-Applications.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.30 g/cc	1.30 g/cc	ISO 1183
Water Absorption	0.50 %	0.50 %	ISO 62

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	89.6 MPa	13000 psi	ISO 527
	114.0 MPa	16530 psi	Extruded Rod; ISO 527
Elongation at Break	30 %	30 %	ISO 527
Elongation at Yield	5.0 %	5.0 %	ISO 527
Tensile Modulus	3.40 GPa	493 ksi	ISO 527
Flexural Strength	170 MPa	24700 psi	Extruded Rod; ISO 178
Flexural Modulus	4.10 GPa	595 ksi	Extruded Rod; ISO 178
Izod Impact, Notched (ISO)	7.00 kJ/m <sup>2</sup>	3.33 ft-lb/in <sup>2</sup>	ISO 180 Type 1B
Charpy Impact Unnotched	NB	NB	ISO 179
Charpy Impact, Notched	0.700 J/cm <sup>2</sup>	3.33 ft-lb/in <sup>2</sup>	ISO 179

Thermal Properties	Metric	English	Comments
CTE, linear	60.0 µm/m-°C	33.3 µin/in-°F	Longitudinal; ISO 11359
	@Temperature 23.0 - 55.0 °C	@Temperature 73.4 - 131 °F	
Melting Point	340 °C	644 °F	DSC, Second Heating; ISO 11357
	335 °C	635 °F	

Vicat Softening Point Thermal Properties	Metric @Load 1.02 kg	English @Load 2.25 lb	Method A: ISO 306 Comments
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Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	IEC 60093
Surface Resistivity per Square	1.00e+15 ohm	1.00e+15 ohm	IEC 60093
Dielectric Strength	25.0 kV/mm	635 kV/in	IEC 60243

Descriptive Properties	Value	Comments
Cytotoxicity	Pass	ISO-10993-5

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China