High Performance Plastics For Medical Applications





High Performance Plastics for the Medical Industry

"Westlake Plastics Company-the time tested source for quality medical products and trusted source for material selection."

Product Range:

- Lennite[®] UHMW PE
- MediPEEK[®] polyetheretherketone (multiple grades)
- Pomalux[®] acetal copolymer
- Propylux[®] HS heat stabilized polypropylene (multiple grades)
- Radel[®]R polyphenylsulphone
- Tempalux[®] polyetherimide
- Zelux[®] polycarbonate

Applications:

- Pharmaceutical: anti static product handling equipment
- Orthopaedic: provisional trials, trays, implants
- Laboratory: animal containment, analytical equipment
- Biotechnology: process equipment

Westlake Plastics Company is a world leader in extrusion and compression molding technologies of High Performance and Medical thermoplastics, including implant and instrument grades for surgical application. Our advanced technologies allow us to convert the full range of thermoplastic resins into stock shapes and film. The medical division of Westlake has assisted numerous device manufacturers in qualifying products for specific applications. Our experienced and highly trained medical team is available to help you choose from our extensive line up of products, which will meet the stringent requirements of the medical industry.



87

Manufacturing Capabilities:

- Rod: .25" to 6" diameter
- Extruded Sheet: .25" to 6" thick
- Compression Molded Sheet: .125" to 6" thick
- Film: .001" to .029" thick

Westlake Plastics Quality Portfolio:

- ISO-9001:2008 registered
- FDA & USP Class VI compliance
- Lot controlled
- Full product traceability
- Large Inventory



Westlake Material Descriptions

LENNITE[®] (UHMW-PE)

Medical grade Lennite UHMW-PE is produced from premium resins in accordance with ASTM specification F648 and International Standard ISO 5834-1 for surgical implants. Westlake Plastics' proprietary manufacturing processes and stringent quality control permit a well consolidated and consistent fabricated form. Recommended sterilization techniques include EtO gas, cold sterilization, and limited gamma irradiation.

MediPEEK[®] (Polyetheretherketone)

MediPEEK is an excellent choice for medical implant and instruments because of its superior strength and performance characteristics in addition to its clinically proven biocompatibility. The two implant grades of PEEK are produced in accordance with ASTM F-2026 standards. MediPEEK-T grade PEEK is for short-term contact whereas MediPEEK-IM grade is for long-term contact. In general, PEEK is used in medical products to improve their usefulness. MediPEEK has excellent mechanical strength and impact properties. It also has good dimensional stability and can be sterilized via steam autoclave, EtO gas or conventional gamma irradiation.

POMALUX[°] (Acetal copolymer)

Medical grade Pomalux is made from acetal copolymer resin which allows machined products the ability to retain dimensional integrity, maintain stability in water and most chemicals at elevated temperatures. Pomalux products are opaque and are available in a wide array of standard colors as well as on a custom basis. Recommended sterilization techniques for Pomalux include EtO gas and steam autoclaving. Disinfectants and germicides generally have no effect on Pomalux, however, acidic solutions can degrade the polymer.

PROPYLUX[®] HS (Polypropylene - heat stabilized)

Medical grade Propylux HS is made from an FDA approved polypropylene resin. Through a unique heat-stabilizing process, the extruded material is able to withstand higher temperatures with less water absorption than standard polypropylene. Recommended sterilization techniques for Propylux HS include steam autoclaving and cold sterilization.

PROPYLUX[®] HS2 (Polypropylene - heat stabilized)

Through process improvement and advanced engineering, Propylux HS2 is the next generation of heat-stabilized polypropylene compression molded sheet. Propylux HS2 is produced from an FDA and USP Class VI approved homopolymer resin and exhibits increased heat and dimensional stability over Propylux HS. Recommended sterilization techniques for Propylux HS2 include steam autoclaving and cold sterilization.

RADEL[®] R5500 (Polyphenylsulfone)

Medical grade Radel R5500 resin offers exceptional hydrolytic stability, toughness, and superior impact strength over a wide temperature range. This product also offers high deflection temperatures and outstanding resistance to environmental stress cracking. Recommended sterilization techniques for Radel R5500 include EtO gas, radiation, steam autoclaving, dry heat and cold sterilization.

TEMPALUX[®] (Polyetherimide)

Medical grade Tempalux is produced from Ultem[®] polyetherimide resin, an amorphous thermoplastic which exhibits excellent resistance to a wide range of chemicals and disinfectants. Tempalux maintains its size and shape over a broad temperature range as well as tolerates a high amount of stress over extended periods of time. Recommended sterilization techniques for Tempalux include EtO gas, radiation, steam autoclaving, dry heat and cold sterilization.

ZELUX[°] GS (Polycarbonate - gamma stabilized)

Medical grade Zelux GS polycarbonate is produced from resin formulated to meet the stringent performance characteristics and requirements of the healthcare industry. Suitable for EtO gas and limited autoclaving sterilization, the resin also has proprietary color enhancement technology to reduce color shift caused by gamma radiation.



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