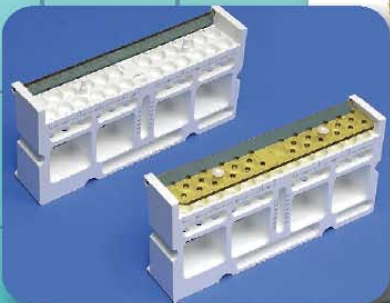




TPI Total™
Plastics
Inc.
LIFE SCIENCES



Your Total Medical Plastics Source 888.874.1771





Polyetheretherketone (PEEK):

VESTAKEEP® Implantable Grade PEEK

Benefits:

- Tested for biocompatibility under ISO and USP classifications
- Compliant with standard specification ASTM F 2026
- Radiolucent in X-ray techniques (unfilled grades)
- Available in diameters ranging from 6mm to 60mm
- Custom stock shapes and near-net shapes as requested

- Excellent chemical and dimensional stability
- Low moisture absorption
- Low tendency to form stress cracks
- High heat resistance and thermal stability

Applications:

- Spinal interbody fusion cages and spacers
- Short and long term human implantable devices



UHMWPE (GUR):

LENNITE® GUR 1050

Benefits:

- Excellent wear resistance
- Extremely high notched impact strength
- Very good sliding quality and low friction loss values
- Outstanding low temperature properties
- High energy absorption at high stress rates
- Excellent chemical resistance
- High resistance against stress cracking
- Very good noise reduction
- Negligible water absorption
- Biocompatibility, Lightweight (0.930 g/cm3)
- FDA, USDA, 3A and NSF compliant grades

Applications:

- Orthopedic surgical implants as articulating surfaces for total joint arthroplasty
- Various instruments, devices and components for orthopedic and general surgery



CHIRULEN® GUR 1020

Benefits:

For more than 30 years, MediTECH® has supplied leading orthopaedic implant manufacturers with premium grade UHMWPE under the Chirulen® brand name. Due to its superior physical and mechanical properties, cleanliness and consistency, Chirulen® has become the material of choice for articulating surfaces, helping restore a higher quality of life to millions of patients worldwide. Chirulen® is available as compression molded sheet, strips, turned rod, blocks, machined pre-forms and profile shapes.

Applications:

- Articulating surfaces for all joint arthroplasties
- Dental implant healing caps
- Bone cement restrictors
- Various orthopaedic applications for long term human implant

Acetal Copolymers (Celcon M25®):

TECAFORM™ AH MT

Benefits:

- Made with Celcon®
- Strength and rigidity
- Good sliding properties
- Heat resistant
- Good Electrical insulation
- Easily welded and machined

Applications:

- Instrument Handles
- Prosthesis Part Testing



POMALUX®

Benefits:

- Made with Celcon®
- Laser markable, lot controlled and traceable
- Resin complies with FDA regulations 21 CFR 177.2470 and 21 CFR 178.3297 for colorants
- Resin meets the requirements of USP Class VI specifications
- Stress relieved

Applications:

- Provisional trials
- Instrument handles
- Medical device components

Heat Stabilized Polypropylenes:

PROPYLUX® HS/HS2

Benefits:

- Excellent chemical resistance
- Laser markable
- Lot controlled and traceable
- Low moisture absorption
- FDA and USP Class VI resin
- Superior dimensional stability
- Withstands repeated steam sterilization

Applications:

- Provisional trials
- Cranio-maxillofacial trays
- Sterilization tray components

TECAPRO™ MT

Benefits:

- High dimensional stability
- High temperature resistance
- Low density
- Lightweight
- Good resistance to cleaning agents/disinfectants
- Good machinability
- Laser markable
- FDA conformity of raw material and color pigment

Applications:

- Surgical trays
- Sterilization containers



Polyetheretherketone (PEEK):

TECAPEEK™ CLASSIX (Prolonged up to 30 day implantable)

Benefits:

- Extremely good chemical resistance
- Mechanical strength
- Dimensional stability
- Excellent abrasion resistance
- Excellent impact strength
- Heat resistant
- Extreme resistance to hydrolysis

Applications:

- Catheters
- Medication dosing systems
- Laparoscopes
- Surgical instruments
- Measurement probes
- Functional parts in production
- Tubes (MIC)
- Devices in contact with blood (Dialysis)
- Endoscopes
- Analytical instruments
- Short term implants
- Filling/Packaging plants for pharmaceuticals



KETRON® PEEK-CLASSIX™ LSG (Human body contact up to 30 days)

Benefits:

- Excellent mechanical, thermal and chemical properties
- Biocompatible
- Can stay in the body for 30 days (180 days with written permission)
- ISO 10993 and USP Class VI compliant

Applications:

- Healing caps
- Temporary abutments
- Endoscopic equipment
- Short term implants
- X-Ray and MRI devices

TECAPEEK™ MT (Limited contact, 24 hours, USP Class VI compliant PEEK)

Benefits:

- Very good chemical resistance
- Very good stress cracking resistance
- Toughness
- Good sliding properties
- Wear resistant
- Creep resistant
- Good machinability
- High resistance to gamma radiation
- Tested and certifiable as being compliant to ISO 10993 and USP Class VI biocompatibility requirements for instrumentation
- Available in 6 colors for color coding instruments
- Colors are Brick Red, Yellow, Blue, Green, Black and Natural

Applications:

- Repeated use surgical instruments
- Instrument holders
- Sterilization containers
- Dental equipment



KETRON® PEEK LSG

Benefits:

- Excellent mechanical, thermal and chemical properties
- Biocompatible
- Can be in contact with the body up to 24 hours
- ISO 10993 and USP Class VI compliant
- A glass-filled grade (standard blue in color) is also available

Applications:

- Dental equipment
- Pharmaceutical tablet production
- Transport and sliding parts
- Bioreactors
- Mass spectrometers
- Chromatography
- Nozzles
- Adapters

TECAPEEK™ CF30/XP98 (PEEK 30% Carbon Filled)

Benefits:

- Excellent creep resistance
- Good chemical resistance
- Hydrolysis resistant
- Flame retardant UL94 V-0
- Excellent rigidity
- Very high dimensional stability
- Excellent wear resistance
- Good machinability
- High resistance to gamma radiation
- Certified as biocompliant to requirements of ISO 10993 for less than 24 hours of contact
- High strength
- Radiolucent

Applications:

- Targeting Guides
- Fixation Systems
- Retractor Blades

KETRON® PEEK-CA30 LSG

Benefits:

- Added carbon fibers to enhance compressive strength, stiffness of PEEK and offer a lower expansion rate
- Optimum wear resistance and load carrying capability
- 3-1/2 times higher thermal conductivity than unreinforced PEEK--dissipating heat from surfaces faster
- Can be in contact with the body up to 24 hours
- ISO 10993 and USP Class VI compliant

Applications:

- Isolating parts
- Bearing surfaces
- Fixator equipment
- Targeting devices
- Minimal invasive devices

Polycarbonate:

TECANAT™ PC (USP Class VI Polycarbonate Rod)

Benefits:

- Transparent
- Toughness
- Strength
- Good heat deformation resistance
- Easily machined, welded & bonded
- Good electrical insulation

Applications:

- Ideal for one-time-use medical devices
- Tecanat® shapes can be certified as meeting the requirements of USP Class VI



ZELUX® GS (Gamma Stabilized Polycarbonate)

Benefits:

- Resin is USP Class VI compliant
- Excellent impact resistance
- Lot controlled and traceable
- Easy to machine
- Optical clarity

Applications:

- Surgical equipment
- Instrument components
- Housings
- Covers

Polyetherimide (Ultem®):

TEMPALUX®

Benefits:

- Inherent flame resistance
- Extremely low NBS smoke evolution
- Superior limiting oxygen index
- Exceptional tensile and flexural strength
- Broad chemical resistance
- UV stable
- FDA and USP Class VI compliant resin

TECAPEI™ MT

Benefits:

- Good autoclaving performance for instruments and orthopedic provisional trials.
- Radio opaque grade is available (Tecapei® MT XRO) for procedures where the surgeon desires clear visibility of the instrument on fluoroscopy or X-ray as a safety feature to quickly locate parts



Polyphenylene Oxide (Noryl®):

TECANYL® MT

Benefits:

- Strong, rigid and tough
- Hot water resistant
- Very good electrical insulation
- Lightweight
- Easily bonded

- Produced by a specially developed resin for repeated sterilization in the autoclave
- Also available in a radio opaque grade (Tecanyl® MT XRO)



Polyphenylsulfone (PPSU)

RADEL® R5500:

Benefits:

- Resin meets the requirements of ISO 10993 specifications
- Lot controlled and traceable
- Superior dimensional stability
- Outstanding impact resistance
- Stress relieved
- Withstands repeated autoclaving
- Laser Markable

Applications:

- Provisional Trials
- Instrument Handles
- Medical Device Components

TECASON™ P MT

Benefits:

- Shapes are tested and certified to ISO 10993 and USP Class VI for devices
- Intended for body contact less than 24 hours
- All colors are tested for cytotoxicity as defined in ISO 10993
- Stocked in a radio opaque version (Tecason® P XRO)
- High impact resistance

Applications:

- Repeated use items with excellent autoclaving performance such as instrument handles, sizing trials and sterilization trays



Polysulfone (Udel®)

TECASON™ S

Benefits:

- High chemical resistance
- Excellent radiation stability
- Low ionic impurity levels
- Hydrolysis resistant

- Heat resistant
- Semi-transparent
- Excellent mechanical and electrical properties

Applications:

- Analytical instrumentation
- Medical devices



SILICONE PIN MATS:

Benefits:

- Produced from platinum-cured, medical grade silicone
- Available in standard DIN size to fit most sterilization containers
- Dimpled bottom to ensure proper drainage
- Custom sizes and configurations (including drain holes) are available upon request
- Stock colors in blue and black with custom colors also available upon request

Applications:

- Surgical tray liners



Tygon® Tubing:

TYGON® S-50-HL TUBING:

Benefits:

- Ideal for contact with blood
- Flexible and resilient with established performance in peristaltic pump applications
- Fully characterized to ISO 10993 and FDA guidelines for bio-compatibility
- Meets USP Class VI criteria

Applications:

- Tubing for chemotherapy
- Dialysis
- Minimally invasive surgery



TYGON®
APPLICATION SPECIFIC TUBING
from Seibt-Gobain Performance Plastics

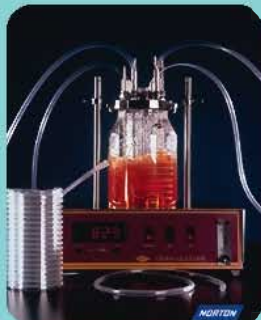
TYGON® 2275 HIGH PURITY TUBING:

Benefits:

- Provides an uncompromising fluid path for sensitive solutions
- Low absorption maintains fluid integrity
- Plasticizer-free (virtually no extractables)
- Environmentally friendly (safe to dispose of through incineration)
- Documented bio-compatibility to the ISO 10993 Standard
- Meets USP Class VI, FDA and NSF criteria

Applications:

- Sterile filling and dispensing systems
- Diagnostic equipment
- Nuclear equipment
- Laboratory analytical instrumentation
- Infusion Sets for parenterals and drugs
- Cosmetic production
- Food and beverage processing
- Cell and tissue culture transport



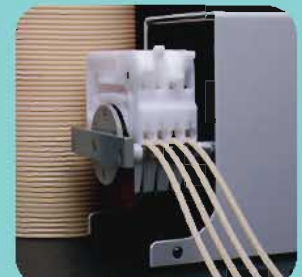
PHARMED® BPT TUBING:

Benefits:

- Flexible
- Outlasts silicone tubing in peristaltic pumps by up to 30 times
- Can be autoclaved repeatedly
- Heat weldable for sterile access in closed systems
- Documented bio-compatibility to the ISO 10993 Standard
- Meets USP Class VI, FDA and NSF criteria

Applications:

- For peristaltic pumps and cell culture
- Transparent working models
- Insulators
- Plug strips
- Masking covers
- Photo couplers
- Housing parts
- Plugs
- Sight glasses
- Optical components
- Weather protection parts



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SERVICES

- ISO 9001:2008 certified facilities
- USP Class VI, FDA and ISO 10993 compliant materials
- Complete material lot and batch traceability
- Standard and custom certifications available on all shipments
- The highest quality measures to ensure product compliance
- Laser markable products
- Worldwide shipping

Plastics play a crucial role in all areas of life sciences including orthopaedics, endoscopy, arthroscopy, cardiovascular, neurological, biomechanical, diagnostic and pharmaceutical, and are used in many types of medical devices and instruments, surgical trays and containers. Because of their unique properties, certain plastics are well suited for medical applications where safety and sterilization are imperative. Total Plastics is dedicated to providing quality materials that fit these criteria through our Life Science Division.

With our versatile inventory of medical grade plastics including sheet, rod, tubing, film and foam tape, our knowledgeable staff is trained to assist with a variety of medical applications through all stages of the process. Total Plastics offers value-added services, such as cut-to-size and on-time delivery.

MEDICAL GRADE THERMOPLASTICS

- Acetal Copolymer (Celcon® M25)
- Antimicrobial Filled Plastics
- Heat Stabilized Polypropylene
- Polyetheretherketone (PEEK)
- Polycarbonate
- Polyetherimide (Ultem®)
- Polyphenylene Oxide (Noryl®)
- Polyphenylsulfone (Radel® R)
- Polysulfone (Udel®)
- Self-Reinforced Polyphenylene (Primospire®)
- UHMWPE (GUR)
- Tygon® Tubing

For more information visit www.totalplastics.com