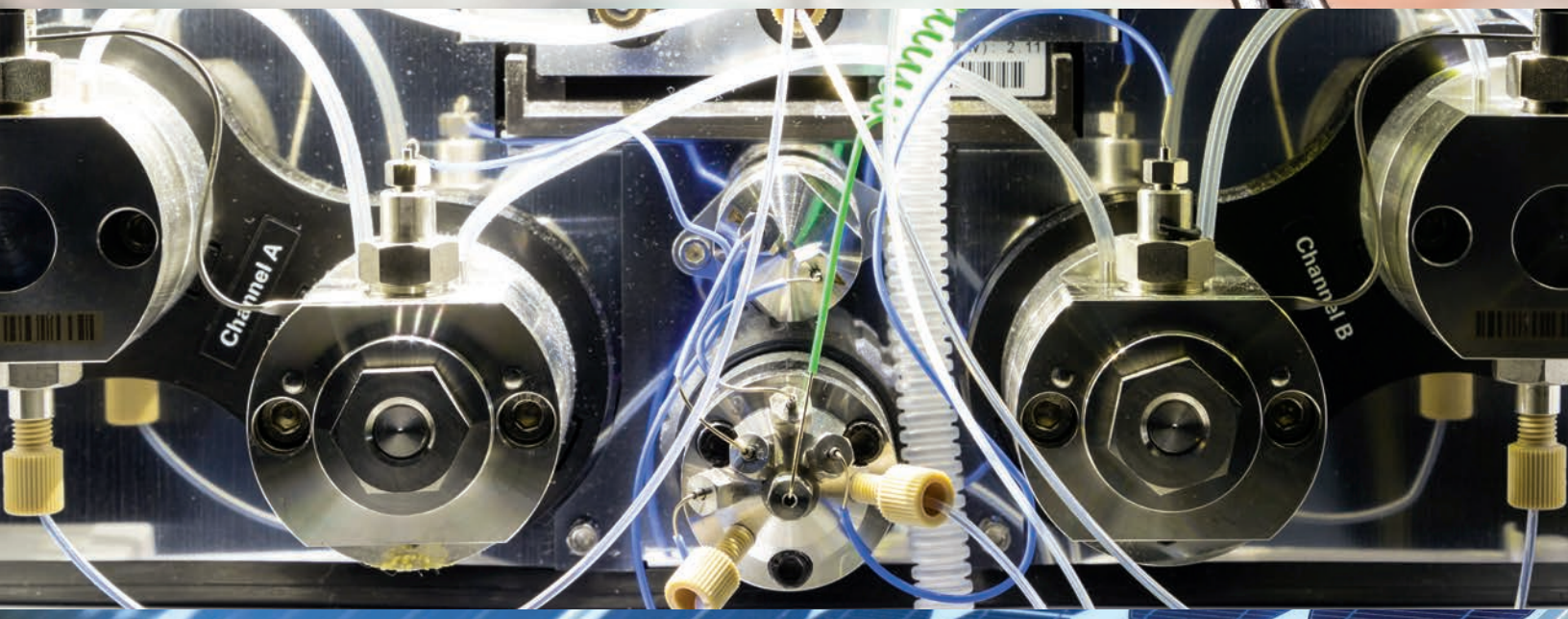
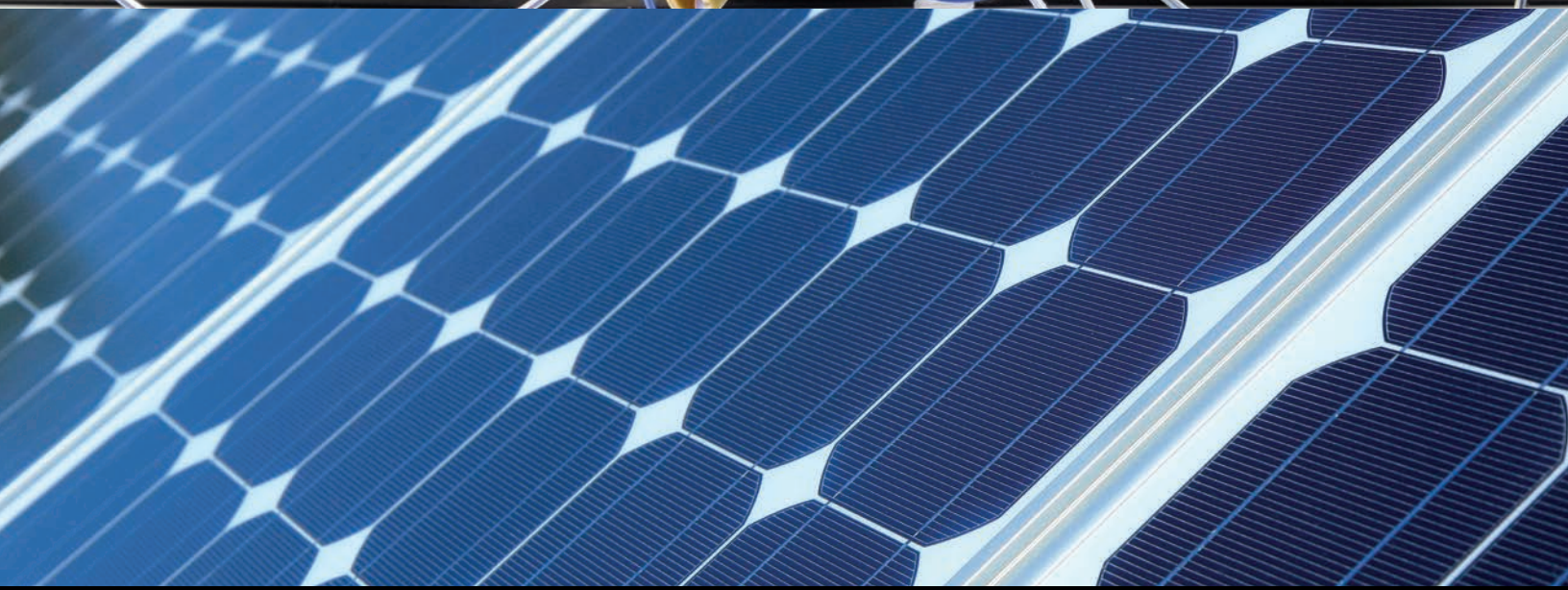
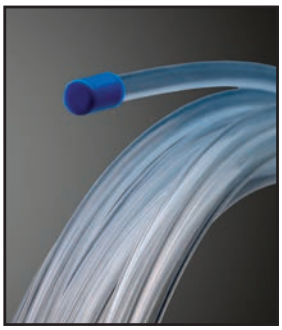




ZEUS®

KEEP TECHNOLOGY FLOWING

SOLUTIONS FOR CRITICAL FLUID TRANSFER



KEEP TECHNOLOGY FLOWING WITH ZEUS TUBING SOLUTIONS - Zeus is a world leader in the development, manufacturing, and supply of high-performance polymer extrusions and heat shrink tubing. Companies turn to Zeus when they demand innovation and quality from their products, responsiveness from their suppliers, and competitive pricing. For almost 50 years, we have focused entirely on the success of our customers, and in the process, built an organization that now includes:

- Multiple facilities in North America, Europe and Asia
- High volume, precision extrusion and post-production finishing
- Sophisticated analytical testing and R&D laboratories
- Multilingual technical sales and support team
- Multi-disciplinary team of chemists and engineers
- A network of knowledgeable, responsive distributors
- Machine shop that designs and builds custom extrusion and finishing equipment
- Flexible, strategic supply solutions that ensure product availability anywhere in the world
- SEMI F57 certification
- ISO 9001:2008

OUR ADVANCED EXTRUSION ROOM ENSURES EXCEPTIONAL PURITY.

- Less than 10,000 ppm particulate count
- 100 percent OD and wall inspection *(standard)*
- Positive pressure micro-filters trap and reduce airborne particulate
- In-line laser marking in accordance with SEMI F57 standards

PFA HIGH PURITY TUBING

- The material of choice for the semiconductor market
- Excellent chemical resistance
- Low metallic extractable characteristics
- Low gas permeability
- Maintains mechanical strength at high temperatures

FEP TUBING

- Preferred for applications requiring clarity and flexibility
- Lower gas and vapor permeability than most polymers
- Low absorption of solvents (less than 1%)
- Unaffected by weather, extreme heat or cold
- Biocompatible *(USP Class VI approved)*

PEEK TUBING

- The gold standard for HPLC analytical science applications
- Outstanding chemical resistance
- Ideal replacement for stainless steel
- High burst pressure and tensile strength
- Biocompatible

THV TUBING

- Highly flexible with exceptional optical clarity
- Good chemical and environmental resistance
- Easily weldable
- Good UV transmittance
- High limiting oxygen resistance

PTFE TUBING

- The ultimate in lubricity, high temperature use and chemical resistance
- Lowest coefficient of friction of any polymer
- Chemically resistant to all common solvents, acids and bases
- Broad working temperature range of 500° F to -454° F *(260° C to -270° C)*
- Biocompatible *(USP Class VI approved)*

DOUBLE CONTAINMENT TUBING

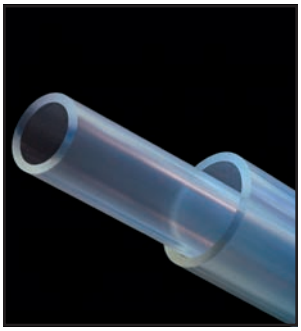
- Inner layer of High Purity PFA tubing and outer layer of FEP for enhanced safety, easy inspection
- Semi F57 certified material
- Capable of being manufactured in long continuous lengths
- Chemical resistant to most common solvents
- Custom laser marked on both the primary and secondary tubes
- Custom packaging options available

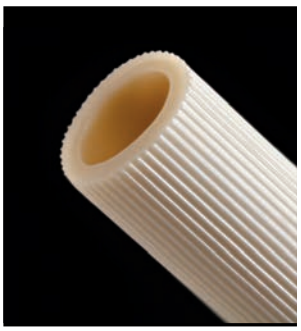
ENGINEEREED SURFACE TUBING

- Available in multiple resins: PEEK, PFA, FEP, etc
- Reduces friction without additives or fillers
- Increases surface area/control with fluids
- Can engineer surface ID/OD or both

RETRACTABLE COILS

- Available in multiple melt processed resins: PFA, FEP, ETFE, etc
- High degree of flexibility & retractability
- Custom sizes & colors available





Property	ASTM Method	PTFE	FEP	PFA	PEEK	THV	PVDF	ETFE
Elongation *(%)*	D638	200-550	245-400	250-420	96-110	420-600	50-400	200-550
Tensile Strength *(Mpa)*	D638	20-35	18-34	25-35	75-97	20-29	17-48	37-50
Flexural Modulus *(Gpa)*	D790	.275-.700	.580-.620	.600-.700	3.600-4.100	.032-.520	1.300-7.000	.700-1.200
Max Service Temperature	n/a	260°C	200°C	260°C	260°C	150°C	130°C	150°C
Min Service Temperature	n/a	-240°C	-240°C	-200°C	ND*	-50°C	ND*	-190°C
Chemical Resistance	n/a	excellent	excellent	excellent	excellent	moderate	excellent	excellent
Coefficient of Friction	D1894	0.02-0.20	0.04-0.20	0.04-0.20	0.34	0.80	0.14-0.23	0.05-0.40

Summary Of Properties: The information presented in this publication is believed to be accurate and is not intended to constitute a specification. Property characteristics are dramatically impacted by geometry and processing method; therefore the properties of extruded parts may vary. This table is only meant to serve as a general guideline; users should evaluate the material to determine the suitability for their own particular application.

ND - No Data Currently*

RESEARCH & DEVELOPMENT

NEW DIMENSIONS IN POLYMER EXTRUSIONS - Zeus helps keep technology flowing for critical fluid industries by creating new products for demanding applications. Our R&D team places a premium on collaboration with industry leaders to streamline the use of new technology. Our R&D team is at the forefront of material science innovation and the extrusion of high-performance polymers. Contact Zeus today to enlist our experts in developing customized, high purity solutions extruded in a SEMI F57-controlled environment, which will allow your team to gain a competitive edge.

- **ISO 9001:2008**
- **Six Sigma-Certified Black Belts on Staff**
- **Polymer Selection/Contract Research Available**
- **Global Tech Support**
- **Multiple Manufacturing Facilities**

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KEEP TECHNOLOGY FLOWING

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