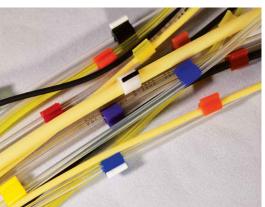
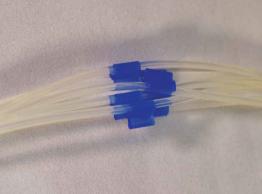
Technology

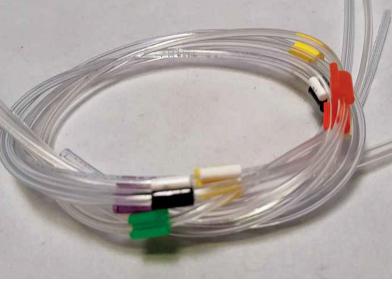


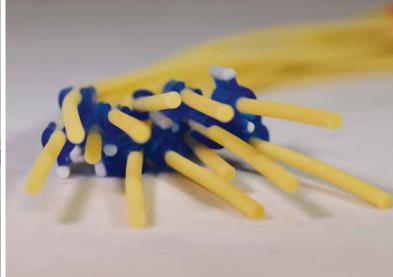
Laboratory tubing and accessories











Scientific Instrumentation New Zealand 2019

About us

DKSH Scientific Instrumentation

As governments and private companies in Asia are increasing their investments in research and development as well as in production capacity and capability, laboratories are facing an increasing demand to produce more accurate results in less time at a reduced cost.

With a complete portfolio of instruments, general equipment, consumables, applications and services, **DKSH Scientific Instrumentation offers** customers total solutions that help to solve complex challenges, improve results and increase productivity. Our solutions include the latest technological innovations to support universities, public and private research institutes, hospitals and industrial and commercial companies. Our solutions approach enables us to design, build, equip and service entire laboratories of our customers. We provide solutions for both laboratory and in-process applications which are used in a wide variety of industries such as material science, oil and gas, environmental, food and beverage, pharmaceutical and life science.

In Australia and New Zealand, the Scientific Instrumentation Business Line supplies a wide range of laboratory instruments, scientific equipment, life science products and consumables, to laboratories in the government, research, university, contract analysis and industrial sectors. We also provide applications support and service across all sectors.



We are a solution provider in these markets:



Academic / Government Research

- Chemistry
- Materials
- Chemical Engineering
- Civil Engineering
- Botany
- Agriculture
- Petroleum
- Minerals
- Food
- Pharmaceutical
- Environmental



Life Science

- Protein Research
- Synthetic Chemistry
- Cell Culture and Imaging
- Diagnostic
- Material Characterization
- Fermentation
- Microinjection
- Viscometry and Densiometry



Energy Resources

- Petroleum
- Fuel / Gas
- Biodiesel
- Lubricants
- Mining
- Green Chemistry



Material Science

- Biomaterials
- Photovoltaics
- Nanomaterials
- Polymers
- Composites
- Pharmaceutical
- Glass
- Metals and Alloys
- Minerals
- Ceramic



Environmental

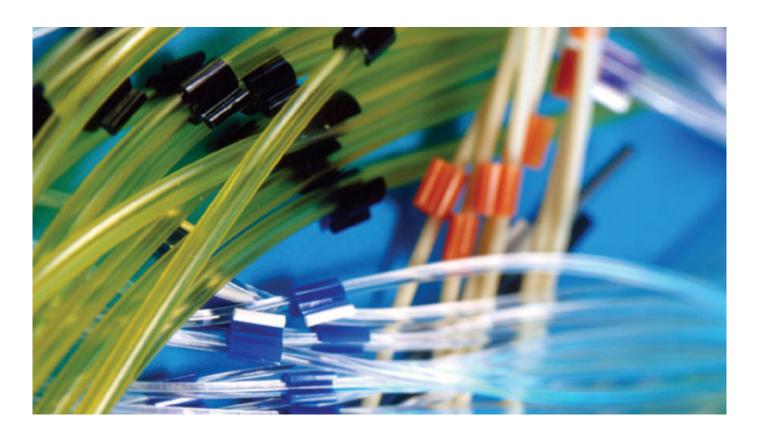
- Water and Waste Water Testing
- Soil Analysis
- Plant Analysis
- Air Monitoring and Testing
- Biological Testing
- Waste Management



Food, Dairy and Beverage

- QC / QA
- Production
- Process Engineering
- Research
- Product Development

DKSH laboratory tubing



DKSH has an extensive range of laboratory tubing and accessories to compliment your business.

The following guide details most of the commonly used tubing and materials. We also supply all of the uncommon sizes and materials including PTFE, FEP, Polyethylene, Polypropylene, KEL-F and PEEK. If the tubing you require is not listed, don't worry, we can most likely supply it. Just telephone or email us for price and availability.

In addition to tubing we also supply a full range of tubing connectors, and spare parts and accessories for all types of auto analysers. Again just telephone or email us for price and availability.

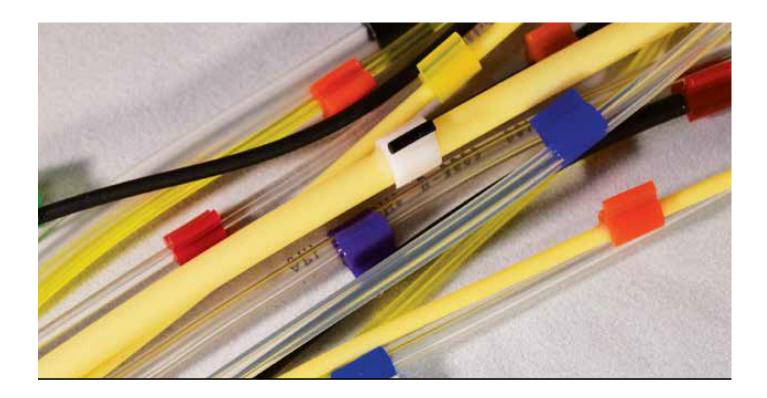
For further enquiries, contact our Customer Service on:

Freecall: 0800 951 010

Email: customerservicenz@dksh.com

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Pump tubes



We offer different pump tube materials for all varieties of peristaltic pump applications. The materials are designed with good handling and life expectancy in mind.

Pump tubes come in the following materials:

- PVC Phthalate-free Polyvinyl Chloride, ideal for most peristaltic pumps
- PVC Solva Solvent resistant phthalate-free PVC
- Silicone Peroxide Cured, medical grade; high strength
- Santoprene® Medical grade thermoplastic rubber; Autoclavable upon request
- Viton® DuPont based Fluoroelastomer with great elasticity and resistant to organic acids
- Coming soon: Pharmaprene®
 (a direct replacement to Santoprene®)
 great in vacuum environments with very smooth bore ideal for life science applications

Our Tygon™ branded pump tubes come in the following material:

- Tygon™ LMT-55 Non-DEHP laboratory formula, phthalate-free for autoanalyzer instruments and more
- Tygon S3® E-3603 Bio-based and phthalate-free laboratory tubing
- Tygon S3® E-LFL Bio-based and phthalate-free long flexible life tubing for micro peristaltic pump dispensing
- Pharmed® BPT Life science application tubing
- Tygon® Dispense Coextruded tubing with chemical-resistant, plasticizer-free liner
- Tygon® F-4040-A Hydrocarbon resistant tubing
- Versilic® SPX-50 Flexible and resilient peroxide-cured silicone tubing

All of the tubing listed here is available in two and three bridge configurations as well as bulk transmission tubing for macrobore peristaltic pump applications.

If you can't find the tubing you are looking for, call or e-mail us with your request for tubing and we'll do our best to meet your needs.

Tygon® tubing

We offer a broad range of Tygon® tubing for different industry needs, including:

- Water treatment
- Industrial
- Laboratory
- Chemicals, fuels and more

We offer different pump tube materials for all varieties of peristaltic pump applications. The materials are designed with good handling and life expectancy in mind.

Tygon® Laboratory Tubing – LMT-55 • Phthalate Free Tubing	Tygon S3™ E-3603 Laboratory Tubing • Environmentally Friendly
Tygon® F-4040-A Fuel and Lubricant Tubing • Excellent Solvent Resistance	Versilon™ F-5500-A Severe Environment Tubing • Excellent Organic Acid Resistance
Tygon® PharMed® BPT Tubing • Long Life Pump Tubing	Versilon™ NT-80 Flexible Reinforced PVC Tubing
Tygon® LP-1200 Low Permeation Fuel Tubing	Versilon™ 2001 Plasticizer Free Tubing
Tygon® LP-1100 and LP-1500 CARB Rated Tubing	Versilon™ R-3400 UV Resistant Tubing
Tygon S3™ E-LFL Long Flex Life Pump Tubing	Versilon™ SE-200 Inert Tubing
Tygon® non-DEHP Medical/Surgical Tubing • Formulation ND-100-65	Versilon™ Silver Tubing
Tygon® non-DEHP Microbore Tubing • Formulation ND-100-65	Versilon™ C-210-A Precision Polyurethane Tubing
Tygon® High Purity Tubing • Formulation 2475 • Formulation 2475 I.B.	Versilon™ C-544-A-IB Polyurethane Pressure Tubing
Tygon® A-60-F Food Process Tubing	Versilon™ Flexible Vinyl Tubing
Tygon® A-60-F-IB Pressure Tubing	Chemfluor® PTFE Tubing
Tygon® A-60-G Industrial Grade Tubing	Tygon® E-1000 Ultra Soft Tubing
Tygon S3™ B-44-3 Beverage Tubing	Tygon® Chemical Tubing
Tygon S3™ B-44-4X Food, Milk and Dairy Tubing	Tygon® 2375 Ultra Chemical Resistant Tubing
Tygon S3™ B-44-4X-IB Pressure Tubing	Tygon® XL-60 Pump Tubing

PVC (Polyvinyl Chloride) is produced by polymerization of Vinyl Chloride Monomer. In order to produce commercial grades of the polymer - which meet various specification requirements - it is compounded with other additives using extrusion and mixing techniques. Depending on the additives used, properties such as flexibility, clarity, color, heat stability, density and chemical resistance can be controlled and modified. This compound can be produced in granular or powder form. PVC has been used across all industries, including medical, for the last 50 years. It is one of the most widely researched and used thermoplastic materials today.

Historically, PVC has been used as a replacement material for rubbers and glass components. Other uses have developed rapidly due to its ability to optimize

performance and safety requirements at a low cost. PVC is characterized by a high degree of biocompatibility, transparency - where needed - and flexibility under changing temperatures and humidities. PVC is easily sterilized to meet a number of industry and medical standards. It also has excellent water and chemical resistance. Phthalate free and DEHP FREE to meet stringent European REACH standards.

Product:

Phthalate Free PVC

Full Name:

Polyvinyl Chloride

Applications:

Peristaltic Pump, Laboratory and Pharmaceutical

Characteristics:

Supple, Strong

Excellent Pumping Life
Good Handling Characteristics
Low Permeability

Temperature Range

-73°C to +74°C (-99°F to +165°F)

Sterilizations:

Ethylene Oxide Autoclave

Hardness:

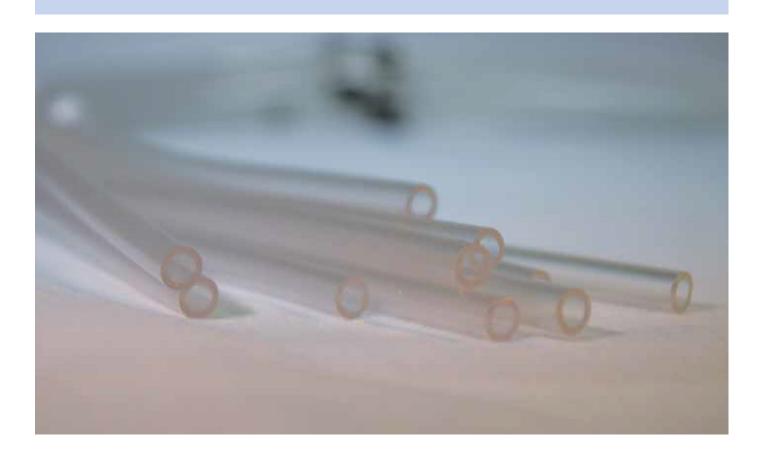
59 Shore A

Elongation at Break:

400% - 470%

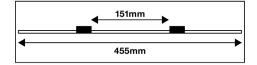
Certification:

Meets USP Class VI and BS2463 US Pharmacopoeia Tested and Certified



116-0549-XX/SC00XX Series 2 Bridge PVC Standard Pump Tubes

Available in packs of 12 tubes

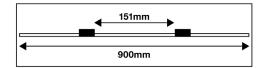


For Flared Tubing place an "F" in front of the 178-3748-XX series part number. For example: F178-3748-10

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black	116-0549-01	
0.19mm	Orange/Red	116-0549-02	
0.25mm	Orange/Blue	116-0549-03	
0.28mm	White/Blue		
0.31mm	Red/Blue	116-0549-20	
0.33mm	Brown/Blue		
).36mm	Brown/Black		
0.38mm	Orange/Green	116-0549-04	
0.44mm	Green/Yellow	SC0004	
0.51mm	Orange/Yellow	16-0549-05	
0.57mm	White/Yellow	SC0006	
0.64mm	Orange/White	116-0549-06	
0.76mm	Black/Black	116-0549-07	
0.89mm	Orange/Orange	116-0549-08	
0.95mm	White/Black	SC0010	
1.02mm	White/White	116-0549-09	
1.09mm	White/Red	SC0012	
1.14mm	Red/Red	16-0549-10	
1.22mm	Red/Grey	SC0014	
1.30mm	Grey/Grey	116-0549-11	
1.42mm	Yellow/Yellow	116-0549-12	
1.52mm	Yellow/Blue	116-0549-19	
1.65mm	Blue/Blue	116-0549-13	
1.75mm	Blue/Green	SC0019	
1.85mm	Green/Green	116-0549-14	
2.06mm	Purple/Purple	116-0549-15	
2.29mm	Purple/Black	116-0549-16	
2.54mm	Purple/Orange	116-0549-17	
2.79mm	Purple/White	116-0549-18	
3.18mm	Black/White	116-0549-21	

A170-0596-XX Series PVC 2 Bridge Long Length Pump Tubes

Available in packs of 12 tubes

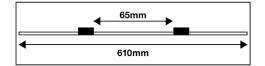


For Flared tubing place an "F" in front of the 170-0596-XX part number. For example: F170-0596-09

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black	A170-0596-01*	
0.19mm	Orange/Red	A170-0596-02*	
0.25mm	Orange/Blue	A170-0596-03	
0.28mm	White/Blue		
0.31mm	Red/Blue	A170-0596-20	
0.33mm	Brown/Blue		
0.36mm	Brown/Black		
0.38mm	Orange/Green	A170-0596-04	
).44mm	Green/Yellow		
0.51mm	Orange/Yellow	A170-0596-05	
0.57mm	White/Yellow		
0.64mm	Orange/White	A170-0596-06	
0.76mm	Black/Black	A170-0596-07	
0.89mm	Orange/Orange	A170-0596-08	
0.95mm	White/Black		
1.02mm	White/White	A170-0596-09	
1.09mm	White/Red		
1.14mm	Red/Red	A170-0596-10	
1.22mm	Red/Grey		
1.30mm	Grey/Grey	A170-0596-11	
1.42mm	Yellow/Yellow	A170-0596-12	
1.52mm	Yellow/Blue	A170-0596-19	
1.65mm	Blue/Blue	A170-0596-13	
1.75mm	Blue/Green		
1.85mm	Green/Green	A170-0596-14	
2.06mm	Purple/Purple	A170-0596-15	
2.29mm	Purple/Black	A170-0596-16	
2.54mm	Purple/Orange	A170-0596-17*	
2.79mm	Purple/White	A170-0596-18	
3.18mm	Black/White		

178-3748-XX Series PVC 2 Bridge Analytical Pump Tubes

Available in packs of 12 tubes

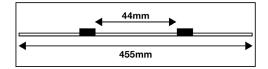


For Flared Tubing place an "F" in front of the 178-3748-XX series part number. For example: F178-3748-10

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black	A178-3748-01*	
0.19mm	Orange/Red	A178-3748-02*	
0.25mm	Orange/Blue	A178-3748-03	
0.28mm	White/Blue		
0.31mm	Red/Blue	A178-3748-20	
0.33mm	Brown/Blue		
0.36mm	Brown/Black		
0.38mm	Orange/Green	A178-3748-04	
0.44mm	Green/Yellow		
0.51mm	Orange/Yellow	A178-3748-05	
0.57mm	White/Yellow		
0.64mm	Orange/White	A178-3748-06	
0.76mm	Black/Black	A178-3748-07	
0.89mm	Orange/Orange	A178-3748-08	
0.95mm	White/Black		
1.02mm	White/White	A178-3748-09	
1.09mm	White/Red		
1.14mm	Red/Red	A178-3748-10	
1.22mm	Red/Grey		
1.30mm	Grey/Grey	A178-3748-11	
1.42mm	Yellow/Yellow	A178-3748-12	
1.52mm	Yellow/Blue	A178-3748-19	
1.65mm	Blue/Blue	A178-3748-13	
1.75mm	Blue/Green		
1.85mm	Green/Green	A178-3748-14	
2.06mm	Purple/Purple	A178-3748-15	
2.29mm	Purple/Black	A178-3748-16	
2.54mm	Purple/Orange	A178-3748-17*	
2.79mm	Purple/White	A178-3748-18	
3.18mm	Black/White		

190-0427-XX Series 2 Bridge PVC Pump Tubes

Available in packs of 12 tubes

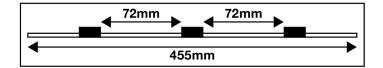


For Flared Tubing place an "F" in front of the 190-0427-XX series part number. For example: F190-0427-08

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black	190-0427-01*	
0.19mm	Orange/Red	190-0427-02*	
0.25mm	Orange/Blue	190-0427-03	
0.28mm	White/Blue		
0.31mm	Red/Blue		
0.33mm	Brown/Blue		
0.36mm	Brown/Black		
0.38mm	Orange/Green	190-0427-04	
0.44mm	Green/Yellow		
0.51mm	Orange/Yellow	190-0427-05	
0.57mm	White/Yellow		
0.64mm	Orange/White	190-0427-06	
0.76mm	Black/Black	190-0427-07	
0.89mm	Orange/Orange	190-0427-08	
0.95mm	White/Black		
1.02mm	White/White	190-0427-09	
1.09mm	White/Red		
1.14mm	Red/Red	190-0427-10	
1.22mm	Red/Grey		
1.30mm	Grey/Grey	190-0427-11	
1.42mm	Yellow/Yellow	190-0427-12	
1.52mm	Yellow/Blue	190-0427-19	
1.65mm	Blue/Blue	190-0427-13	
1.75mm	Blue/Green		
1.85mm	Green/Green	190-0427-14	
2.06mm	Purple/Purple	190-0427-15	
2.29mm	Purple/Black	190-0427-16	
2.54mm	Purple/Orange	190-0427-17*	
2.79mm	Purple/White	190-0427-18	
3.18mm	Black/White		
	* Blank Part numbers or n order requirement, longer	umbers with an asterisk at the end an lead times or may not be available.	e special ordered items which may result in an minimum

SC00XX Series 3 Bridge PVC Pump Tubes

Available in packs of 12 tubes



For Flared Tubing place an "F" in front of the SC00XX series part number. For example: FSC0059

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black/Orange	SC0189	
0.19mm	Orange/Red/Orange	SC0049	
0.25mm	Orange/Blue/Orange	SC0050	
0.28mm	White/Blue/White		
0.31mm	Red/Blue/Red		
).33mm	Brown/Blue/Brown		
0.36mm	Brown/Black/Brown		
0.38mm	Orange/Green/Orange	SC0051	
0.44mm	Green/Yellow/Green	SC0052	
0.51mm	Orange/Yellow/Orange	SC0053	
0.57mm	White/Yellow/White	SC0054	
0.64mm	Orange/White/Orange	SC0055	
0.76mm	Black/Black/Black	SC0056	
).89mm	Orange/Orange/Orange	SC0057	
0.95mm	White/Black/White	SC0058	
1.02mm	White/White/White	SC0059	
1.09mm	White/Red/White	SC0060	
1.14mm	Red/Red/Red	SC0061	
1.22mm	Red/Grey/Red	SC0062	
1.30mm	Grey/Grey/Grey	SC0063	
1.42mm	Yellow/Yellow/Yellow	SC0064	
1.52mm	Yellow/Blue/Yellow	SC0065	
1.65mm	Blue/Blue/Blue	SC0066	
1.75mm	Blue/Green/Blue	SC0067	
1.85mm	Green/Green	SC0068	
2.06mm	Purple/Purple/Purple	SC0069	
2.29mm	Purple/Black/Purple	SC0070	
2.54mm	Purple/Orange/Purple	SC0071	
2.79mm	Purple/White/Purple	SC0072	
3.18mm	Black/White/Black	SC0073	

PVC solva pump tubes

PVC Solva is a range of small bore tubing to meet a wide range of applications. It can be used in conjunction with aromatic oils, inks, petroleum compound, solvents and many other applications. It is Phthalate Free, which meets the requirements of the REACH regulation. Solva has similar chemical resistance to Viton tubing, but is more competitively priced. The PVC contains at TOTM plasticizer which maintains the integrity of the Solva during

transportation of any oils that you are using. It also has a low gas permeability. It is flexible, translucent for any visual needs, but also bright yellow to contrast standard PVC. It is designed to offer a best-in-class pumping life and a wide compatibility with most pumping systems.

Product:

Phthalate Free Solvent Resistant Medical Grade PVC, highly extraction resistant

Full Name:

Polyvinyl Chloride

Applications:

Laboratory and Industrial For use with Peristaltic Pumps, with Solvent and Aromatic Oils

Characteristics:

Good Chemical Resistance Excellent Pumping Life Good Handling Characteristics Low Permeability

Temperature Range

 -50° C to $+74^{\circ}$ C (-58° F to $+165^{\circ}$ F)

Sterilizations:

Ethylene Oxide Autoclave

Hardness:

64 Shore A

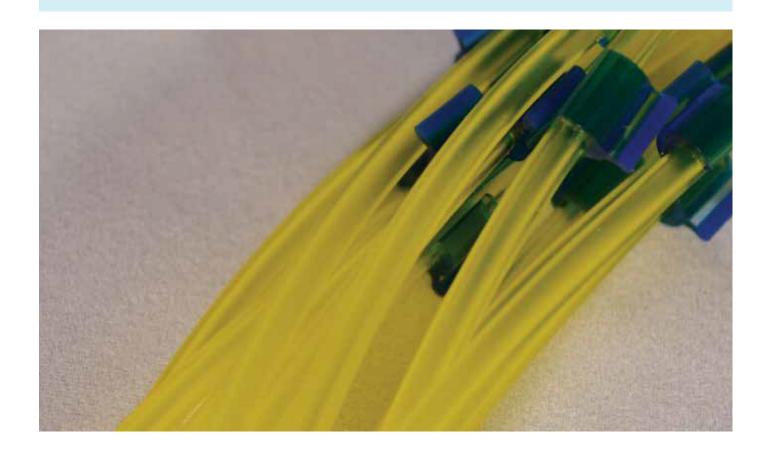
Elongation at Break:

435%

Certification:

Meets USP Class VI and BS2463 Including Low Zine Content & Low UV Absorption

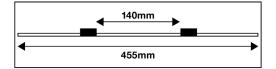
US Pharmacopoeia Tested and Certified



PVC solva pump tubes

116-0533-XX Series PVC Solva 2 Bridge Pump Tubes

Available in packs of 12 tubes



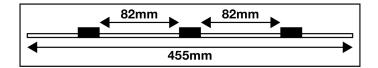
For Flared Tubing place an "F" in front of the 116-0533-XX series part number. For example: F116-0533-11

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black	116-0533-01	
0.19mm	Orange/Red	116-0533-02	
0.25mm	Orange/Blue	116-0533-03	
0.28mm	White/Blue		
0.31mm	Red/Blue		
0.33mm	Brown/Blue		
0.36mm	Brown/Black		
0.38mm	Orange/Green	116-0533-04	
0.44mm	Green/Yellow	116-0533-44	
0.51mm	Orange/Yellow	116-0533-05	
0.57mm	White/Yellow	116-0533-57	
0.64mm	Orange/White	116-0533-06	
0.76mm	Black/Black	116-0533-07	
).89mm	Orange/Orange	116-0533-08	
0.95mm	White/Black		
1.02mm	White/White	116-0533-09	
1.09mm	White/Red	116-0533-109*	
1.14mm	Red/Red	116-0533-10	
1.22mm	Red/Grey		
1.30mm	Grey/Grey	116-0533-11	
1.42mm	Yellow/Yellow	116-0533-12	
1.52mm	Yellow/Blue	116-0533-19	
1.65mm	Blue/Blue	116-0533-13	
1.75mm	Blue/Green	SC9919	
1.85mm	Green/Green	116-0533-14	
2.06mm	Purple/Purple	116-0533-15	
2.29mm	Purple/Black	116-0533-16	
2.54mm	Purple/Orange	116-0533-17	
2.79mm	Purple/White	116-0533-18	
3.18mm	Black/White	116-0533-21	

PVC solva pump tubes

SCOXXX Series PVC Solva 3 Bridge Pump Tubes

Available in packs of 12 tubes

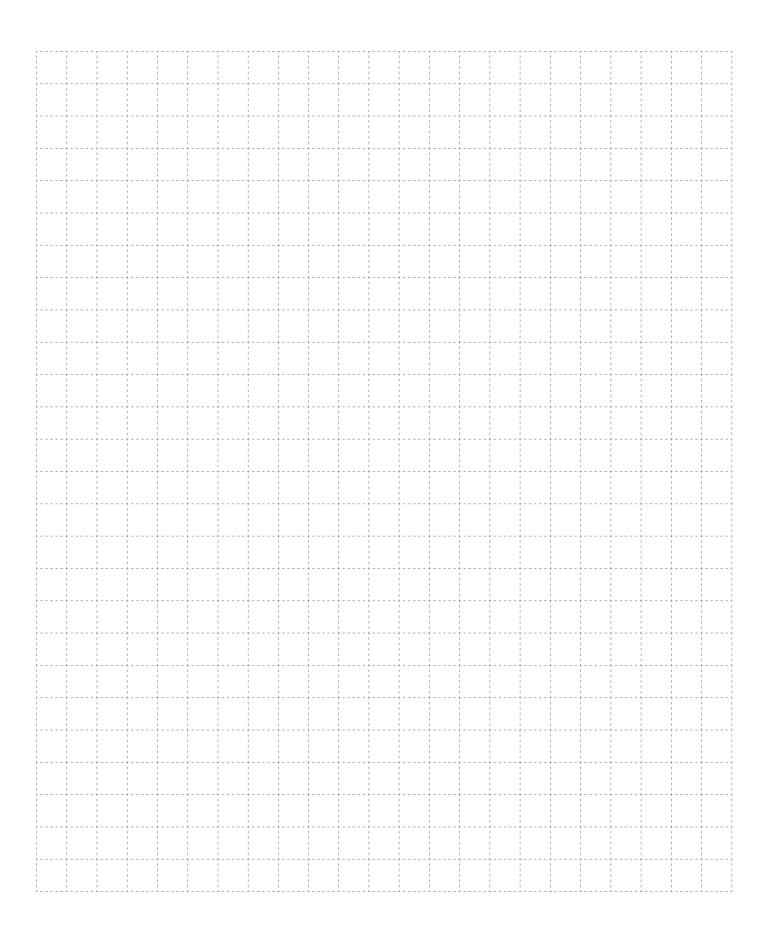


For Flared Tubing place an "F" in front of the SC00XX series part number. For example: FSC0097

Metric I.D.	Description	Part No.*	Color Code	
0.13mm	Orange/Black/Orange	SC0189S*		
0.19mm	Orange/Red/Orange			
0.25mm	Orange/Blue/Orange	SC0286		
0.28mm	White/Blue/White			
0.31mm	Red/Blue/Red			
0.33mm	Brown/Blue/Brown			
0.36mm	Brown/Black/Brown			
0.38mm	Orange/Green/Orange	SC0287		
0.44mm	Green/Yellow/Green			
).51mm	Orange/Yellow/Orange	SC0288		
0.57mm	White/Yellow/White			
0.64mm	Orange/White/Orange	SC0289		
0.76mm	Black/Black/Black	SC0290		
).89mm	Orange/Orange/Orange	SC0291		
D.95mm	White/Black/White			
1.02mm	White/White/White	SC0292		
1.09mm	White/Red/White			
1.14mm	Red/Red/Red	SC0293		
1.22mm	Red/Grey/Red			
1.30mm	Grey/Grey/Grey	SC0294		
1.42mm	Yellow/Yellow/Yellow	SC0295		
1.52mm	Yellow/Blue/Yellow	SC0296		
1.65mm	Blue/Blue/Blue	SC0297		
1.75mm	Blue/Green/Blue			
1.85mm	Green/Green/Green	SC0298		
2.06mm	Purple/Purple/Purple	SC0299		
2.29mm	Purple/Black/Purple	SC0300		
2.54mm	Purple/Orange/Purple	SC0301		
2.79mm	Purple/White/Purple	SC0302		
3.18mm	Black/White/Black	4062-6125		

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Notes



Silicone is a synthetic polymer and is produced by a crosslinked polymer reinforced with silica. Further cross-linking takes place by heating with a particular catalyst (i.e. peroxide), to produce the required properties. Silicone has good environmental resistance to heat, cold, ozone, UV, humidity and abrasion. It has outstanding heat resistance, to over 230°C. Electrical resistance is also excellent, and Silicone is frequently used

in high voltage/high current applications. However, Silicone can be modified with additives to make it electrically conductive. Silicone does not support microbiological growth, which makes it very useful in pharmaceutical and medical environments. Silicone is a high performance polymer and necessarily more expensive because of its properties. It is made in lower quantities and requires expensive equipment for the compound and the final product's

manufacture. Silicone is highly permeable to gas, which can be a useful property. Silicone is not classed as hazardous waste, and therefore can be disposed of according to local regulations. Flared ends is available upon request. Platinum cured Silicone in the same sizes as the standard Silicone is also available upon request and is a Special Ordered item.

Product:

Medical Grade Silicone, Peroxide Cured

Full Name:

Silicone

Applications:

Medical, Pharmaceutical & Industrial Users, High Strength for use on Peristaltic Pumps

Characteristics:

Good Chemical Resistance Wide Operating Temperature Range Excellent Pumping Characteristics Flexible, Kink Resistant, Odorless Non-Toxic, Low Compression Set

Temperature Range

-50°C to +230°C (-58°F to +446°F)

Sterilizations:

Ethylene Oxide Gamma Irradiation Autoclave (Unbridged Tubing)

Hardness:

60 Shore A

Elongation at Break:

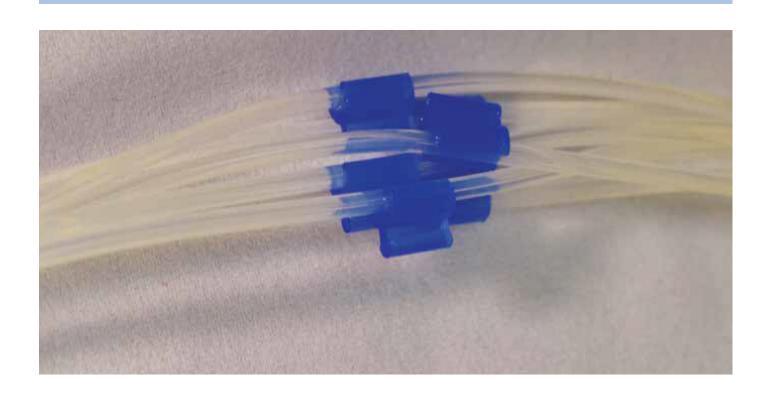
450% - 540%

Tear Strength:

34Kn/m

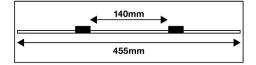
Certification:

Meets USP Class VI US Pharmacopoeia Tested and Certified



116-0497-XX Series 2 Bridge Silicone Pump Tubes

Available in packs of 12 tubes

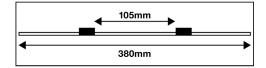


For Flared Tubing place an "F" in front of the 116-0497-XX series part number. For example: F116-0497-12

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black	116-0497-01	
).19mm	Orange/Red		
0.25mm	Orange/Blue	116-0497-04	
0.28mm	White/Blue		
0.31mm	Red/Blue		
0.33mm	Brown/Blue		
0.36mm	Brown/Black		
0.38mm	Orange/Green	116-0497-05	
0.44mm	Green/Yellow		
0.51mm	Orange/Yellow	116-0497-06	
0.57mm	White/Yellow		
0.64mm	Orange/White	116-0497-07	
0.76mm	Black/Black	116-0497-08	
).89mm	Orange/Orange	116-0497-09	
0.95mm	White/Black		
1.02mm	White/White	116-0497-10	
1.09mm	White/Red		
1.14mm	Red/Red	116-0497-11	
1.22mm	Red/Grey		
1.30mm	Grey/Grey	116-0497-12	
1.42mm	Yellow/Yellow	116-0497-13	
1.52mm	Yellow/Blue	116-0497-14	
1.65mm	Blue/Blue	116-0497-15	
1.75mm	Blue/Green		
1.85mm	Green/Green	116-0497-16	
2.06mm	Purple/Purple	116-0497-17	
2.29mm	Purple/Black	116-0497-18	
2.54mm	Purple/Orange	116-0497-19	
2.79mm	Purple/White	116-0497-20	
3.18mm	Black/White	116-0497-21	

116-0581-XX Series 2 Bridge Silicone Pump Tubes

Available in packs of 12 tubes

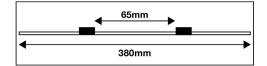


For Flared Tubing place an "F" in front of the 116-0581-XX series part number. For example: F116-0581-10

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black		
0.19mm	Orange/Red		
0.25mm	Orange/Blue		
0.28mm	White/Blue		
0.31mm	Red/Blue		
).33mm	Brown/Blue	116-0581-14	
0.36mm	Brown/Black	116-0581-15	
0.38mm	Orange/Green	116-0581-11	
0.44mm	Green/Yellow		
0.51mm	Orange/Yellow	116-0581-12	
0.57mm	White/Yellow		
0.64mm	Orange/White	116-0581-04	
0.76mm	Black/Black	116-0581-13	
0.89mm	Orange/Orange	116-0581-05	
0.95mm	White/Black		
1.02mm	White/White		
1.09mm	White/Red		
1.14mm	Red/Red	116-0581-02	
1.22mm	Red/Grey		
1.30mm	Grey/Grey	116-0581-03	
1.42mm	Yellow/Yellow	116-0581-06	
1.52mm	Yellow/Blue		
1.65mm	Blue/Blue	116-0581-08	
1.75mm	Blue/Green		
1.85mm	Green/Green	116-0581-08	
2.06mm	Purple/Purple		
2.29mm	Purple/Black		
2.54mm	Purple/Orange	116-0581-09	
2.79mm	Purple/White	116-0581-10	
3.18mm	Black/White		

116-0559-XX Series 2 Bridge Silicone Pump Tubes

Available in packs of 12 tubes

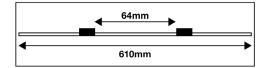


For Flared Tubing place an "F" in front of the 116-0559-XX series part number. For example: F116-0559-14

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black		
0.19mm	Orange/Red		
0.25mm	Orange/Blue	116-0559-01	
0.28mm	White/Blue	116-0559-05*	
0.31mm	Red/Blue		
0.33mm	Brown/Blue	116-0559-14*	
0.36mm	Brown/Black	116-0559-15*	
0.38mm	Orange/Green		
0.44mm	Green/Yellow		
0.51mm	Orange/Yellow	116-0559-01*	
0.57mm	White/Yellow		
0.64mm	Orange/White	116-0559-06*	
0.76mm	Black/Black		
).89mm	Orange/Orange		
0.95mm	White/Black		
1.02mm	White/White		
1.09mm	White/Red		
1.14mm	Red/Red		
1.22mm	Red/Grey		
1.30mm	Grey/Grey		
1.42mm	Yellow/Yellow		
1.52mm	Yellow/Blue		
1.65mm	Blue/Blue		
1.75mm	Blue/Green		
1.85mm	Green/Green		
2.06mm	Purple/Purple		
2.29mm	Purple/Black		
2.54mm	Purple/Orange		
2.79mm	Purple/White	116-0559-16*	
3.18mm	Black/White		

188-0132-XX Series 2 Bridge Silicone Pump Tubes

Available in packs of 12 tubes

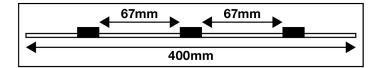


For Flared Tubing place an "F" in front of the 188-0132-XX series part number. For example: F188-0132-07

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black		
0.19mm	Orange/Red	188-0132-02	
0.25mm	Orange/Blue	188-0132-03	
0.28mm	White/Blue		
).31mm	Red/Blue		
).33mm	Brown/Blue		
0.36mm	Brown/Black		
0.38mm	Orange/Green		
0.44mm	Green/Yellow		
0.51mm	Orange/Yellow		
0.57mm	White/Yellow		
0.64mm	Orange/White	188-0132-06	
0.76mm	Black/Black	188-0132-07	
0.89mm	Orange/Orange	188-0132-08	
0.95mm	White/Black		
1.02mm	White/White	188-0132-09	
1.09mm	White/Red		
1.14mm	Red/Red	188-0132-10	
1.22mm	Red/Grey		
1.30mm	Grey/Grey	188-0132-11	
1.42mm	Yellow/Yellow	188-0132-12	
1.52mm	Yellow/Blue	188-0132-19	
1.65mm	Blue/Blue	188-0132-13	
1.75mm	Blue/Green		
1.85mm	Green/Green	188-0132-14	
2.06mm	Purple/Purple	188-0132-15	
2.29mm	Purple/Black	188-0132-16	
2.54mm	Purple/Orange		
2.79mm	Purple/White		
3.18mm	Black/White		

SCOXXX Series 3 Bridge Silicone Pump Tubes

Available in packs of 12 tubes



For Flared Tubing place an "F" in front of the FSC0XXX series part number. For example: FSC0110

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black/Orange		
0.19mm	Orange/Red/Orange		
0.25mm	Orange/Blue/Orange	SC0497-04	
0.28mm	White/Blue/White		
0.31mm	Red/Blue/Red		
0.33mm	Brown/Blue/Brown		
0.36mm	Brown/Black/Brown		
0.38mm	Orange/Green/Orange		
0.44mm	Green/Yellow/Green		
0.51mm	Orange/Yellow/Orange	SC0497-06	
0.57mm	White/Yellow/White		
0.64mm	Orange/White/Orange	SC0106	
0.76mm	Black/Black/Black	SC0107	
).89mm	Orange/Orange/Orange	SC0108	
0.95mm	White/Black/White		
1.02mm	White/White/White	SC109	
1.09mm	White/Red/White		
1.14mm	Red/Red/Red	SC0110	
1.22mm	Red/Grey/Red		
1.30mm	Grey/Grey/Grey	SC0111	
1.42mm	Yellow/Yellow/Yellow	SC0112	
1.52mm	Yellow/Blue/Yellow	SC0113	
1.65mm	Blue/Blue/Blue	SC0114	
1.75mm	Blue/Green/Blue		
1.85mm	Green/Green/Green	SC0115	
2.06mm	Purple/Purple/Purple	SC0116	
2.29mm	Purple/Black/Purple	SC0117	
2.54mm	Purple/Orange/Purple	SC0118	
2.79mm	Purple/White/Purple	SC0119	
3.18mm	Black/White/Black		

Santoprene® is a proprietary type of thermoplastic rubber elastomer, manufactured by Advanced Elastomer Systems L.P. Santoprene® is a polyolefinic material, produced by a proprietary dynamic vulcanization which produces rubber particles dispersed throughout a continuous matrix of thermoplastic.. This material combines the performance

characteristics of vulcanized rubber and the processing ease of thermoplastics. Santoprene® has properties that make it very tolerant of temperatures, chemicals and environmental abrasion. Santoprene® is available in a range of hardnesses. The most popular hardness grade for smallbore peristaltic pump use is 64 Shore A. This gives the best combination of easy occlusion and good material recovery for effective long-life pumping. Other grades are available for alternative applications. Medical grades of Santoprene® have a DMF file lodged with the US FDA, and are approved to USP Class.

Product:

Medical Grade Thermoplastic Rubber

Full Name:

Santoprene®

Applications:

Medical, Pharmaceutical, Laboratory & Industrial Users
For use with Peristaltic Pumps

Characteristics:

Good Chemical Resistance, Flexible and Strong Good Handling Characteristics Abrasion Resistant, Non-toxic Excellent Pumping Life

Temperature Range

 -50° C to $+135^{\circ}$ C (-58° F to $+275^{\circ}$ F)

Sterilizations:

Gamma Irradiation
Autoclave (Unbridged Tubing)

Hardness:

60 Shore A

Elongation at Break:

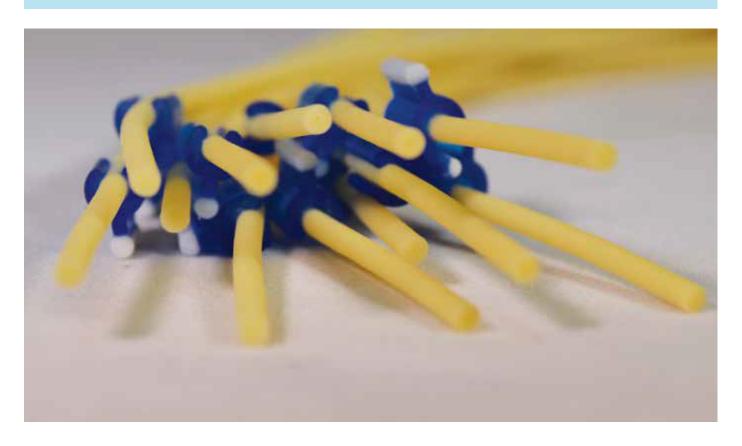
440%

Tear Strength:

25Kn/m

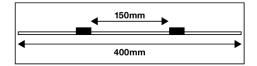
Certification:

Meets USP Class VI US Pharmacopoeia Approved and Certified FDA Approved DMF No17690 Santoprene® is a Registered Trade Mark of Advanced Elastomer Systems, L.P.



SC03XX Series 2 Bridge Santoprene® Pump Tubes

Available in packs of 12 tubes

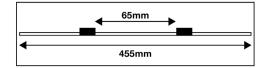


For Flared Tubing place an "F" in front of the SC0325 series part number. For example: FSC0327

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black	SC0301SAN*	
).19mm	Orange/Red		
0.25mm	Orange/Blue	SC0320*	
0.28mm	White/Blue		
0.31mm	Red/Blue		
0.33mm	Brown/Blue		
0.36mm	Brown/Black		
0.38mm	Orange/Green	SC0321	
0.44mm	Green/Yellow		
0.51mm	Orange/Yellow	SC3222*	
0.57mm	White/Yellow		
0.64mm	Orange/White	SC0323	
0.76mm	Black/Black	SC0324	
0.89mm	Orange/Orange	SC0325*	
0.95mm	White/Black		
1.02mm	White/White	SC0326	
1.09mm	White/Red		
1.14mm	Red/Red	SC0327	
1.22mm	Red/Grey		
1.30mm	Grey/Grey		
1.42mm	Yellow/Yellow	SC0328	
1.52mm	Yellow/Blue	SC0329	
1.65mm	Blue/Blue	SC0330	
1.75mm	Blue/Green		
1.85mm	Green/Green		
2.06mm	Purple/Purple	SC0332	
2.29mm	Purple/Black	SC0333	
2.54mm	Purple/Orange	SC0334	
2.79mm	Purple/White	SC0335	
3.18mm	Black/White	SAN-318-01*	

178+0539-XX Series 2 Bridge Santoprene® Pump Tubes

Available in packs of 12 tubes



For Flared Tubing place an "F" in front of the 178+0539-XX series part number. For example: F178+0539-16

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black		
0.19mm	Orange/Red		
0.25mm	Orange/Blue	178+0539-03	
0.28mm	White/Blue		
).31mm	Red/Blue		
).33mm	Brown/Blue		
).36mm	Brown/Black		
).38mm	Orange/Green	178+0539-04	
).44mm	Green/Yellow		
).51mm	Orange/Yellow	178+0539-05	
).57mm	White/Yellow		
0.64mm	Orange/White	178+0539-06	
0.76mm	Black/Black	178+0539-07	
).89mm	Orange/Orange	178+0539-08	
).95mm	White/Black		
1.02mm	White/White	178+0539-09	
1.09mm	White/Red		
1.14mm	Red/Red	178+0539-10	
1.22mm	Red/Grey		
1.30mm	Grey/Grey	178+0539-11	
1.42mm	Yellow/Yellow	178+0539-12	
1.52mm	Yellow/Blue	178+0539-19	
1.65mm	Blue/Blue	178+0539-13	
1.75mm	Blue/Green		
1.85mm	Green/Green	178+0539-14	
2.06mm	Purple/Purple	178+0539-15	
2.29mm	Purple/Black	178+0539-16	
2.54mm	Purple/Orange	178+0539-17	
2.79mm	Purple/White		
3.18mm	Black/White		

116-0539-XX Series 2 Bridge Santoprene® Pump Tubes

Available in packs of 12 tubes

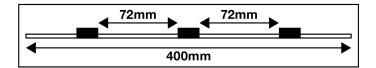


For Flared Tubing place an "F" in front of the 116-0539-XX series part number. For example: F116-0539-10

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black	116-0539-01	
0.19mm	Orange/Red		
0.25mm	Orange/Blue	116-0539-03	
0.28mm	White/Blue		
0.31mm	Red/Blue		
0.33mm	Brown/Blue		
0.36mm	Brown/Black		
0.38mm	Orange/Green	116-0539-04	
0.44mm	Green/Yellow		
0.51mm	Orange/Yellow	116-0539-05	
0.57mm	White/Yellow		
0.64mm	Orange/White		
0.76mm	Black/Black	116-0539-07	
0.89mm	Orange/Orange	116-0539-08	
0.95mm	White/Black		
1.02mm	White/White		
1.09mm	White/Red		
1.14mm	Red/Red	116-0539-10	
1.22mm	Red/Grey		
1.30mm	Grey/Grey	116-0539-11	
1.42mm	Yellow/Yellow	116-0539-12	
1.52mm	Yellow/Blue	116-0539-19	
1.65mm	Blue/Blue	116-0539-13	
1.75mm	Blue/Green		
1.85mm	Green/Green	116-0539-14	
2.06mm	Purple/Purple	116-0539-15	
2.29mm	Purple/Black		
2.54mm	Purple/Orange	116-0539-17	
2.79mm	Purple/White		
3.18mm	Black/White		

SC03XX Series 3 Bridge Santoprene® Pump Tubes

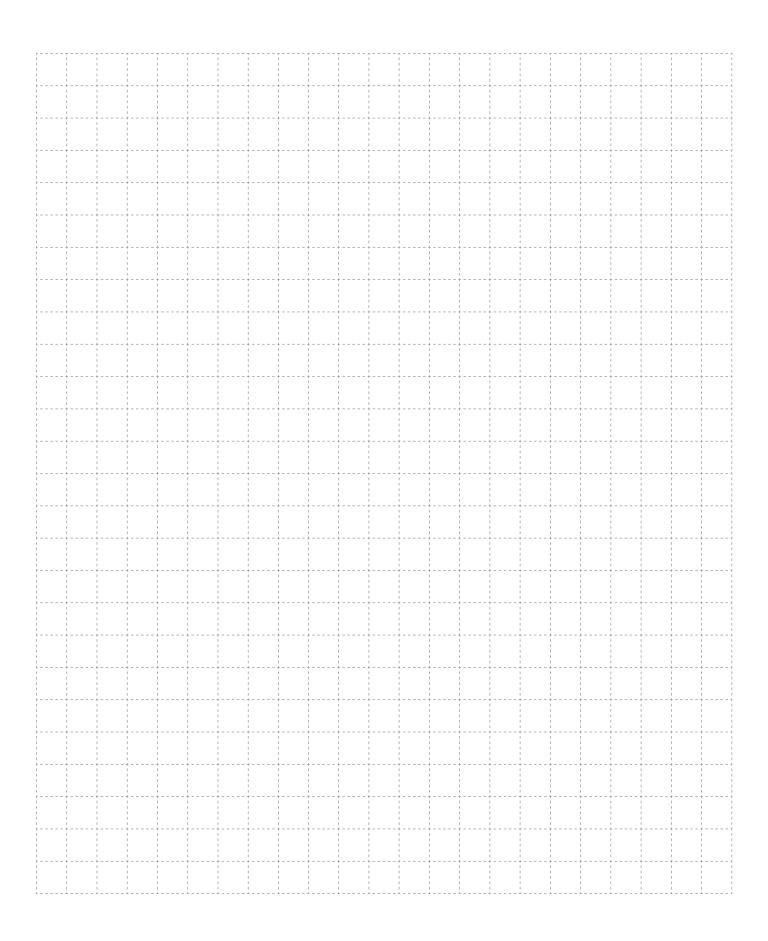
Available in packs of 12 tubes



For Flared Tubing place an "F" in front of the FSC03XX series part number. For example: FSC0311

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black/Orange		
0.19mm	Orange/Red/Orange		
0.25mm	Orange/Blue/Orange	SC0303	
0.28mm	White/Blue/White		
0.31mm	Red/Blue/Red		
0.33mm	Brown/Blue/Brown		
0.36mm	Brown/Black/Brown		
0.38mm	Orange/Green/Orange	SC0304	
0.44mm	Green/Yellow/Green		
0.51mm	Orange/Yellow/Orange	SC0305	
0.57mm	White/Yellow/White		
0.64mm	Orange/White/Orange	SC0306	
0.76mm	Black/Black/Black	SC0307	
0.89mm	Orange/Orange/Orange	SC0308	
0.95mm	White/Black/White		
1.02mm	White/White/White	SC0309	
1.09mm	White/Red/White		
1.14mm	Red/Red/Red	SC0310	
1.22mm	Red/Grey/Red		
1.30mm	Grey/Grey/Grey	SC0311	
1.42mm	Yellow/Yellow/Yellow	SC0312	
1.52mm	Yellow/Blue/Yellow	SC0313	
1.65mm	Blue/Blue/Blue	SC0314	
1.75mm	Blue/Green/Blue		
1.85mm	Green/Green/Green	SC0315	
2.06mm	Purple/Purple/Purple	SC0316	
2.29mm	Purple/Black/Purple	SC0317	
2.54mm	Purple/Orange/Purple	SC0318	
2.79mm	Purple/White/Purple	SC3019	
3.18mm	Black/White/Black	SC0337	

Notes



Pharmaprene® pump tubes

Pharmaprene is designed as a replacement for Santoprene® which is being discontinued. It has many similar visible properties to Santoprene®. Characteristics include very good chemical resistance to alcohols, ozone, aqueous systems etc. It also showcases good flow consistency for peristaltic pump applications. It is ideal for under vacuum conditions. Furthermore

it is anti-aging and tough tubing with a wide temperature range. It is available free of latex and is fully RoHS compliant and contains no Substances of Very High Concern (SVHC's) as classified by the REACH environmental regulations.

Product:

Pharmaprene® - Phthalate Free, Flexible TPE Medical Extrusion Compound

Full Name:

Pharmaprene®

Applications:

Peristaltic Pump, Laboratory and Medical Directly replaces Santoprene®

Characteristics:

Very good chemical resistance Excellent pump life Anti-aging and tough

Temperature Range

 50° C to $+135^{\circ}$ C (-58° F to $+275^{\circ}$ F)

Sterilizations:

Gamma Irradiation ETO (Ethylyene Oxide Gas) Autoclave (unbridged tubing)

Hardness:

64 Shore A

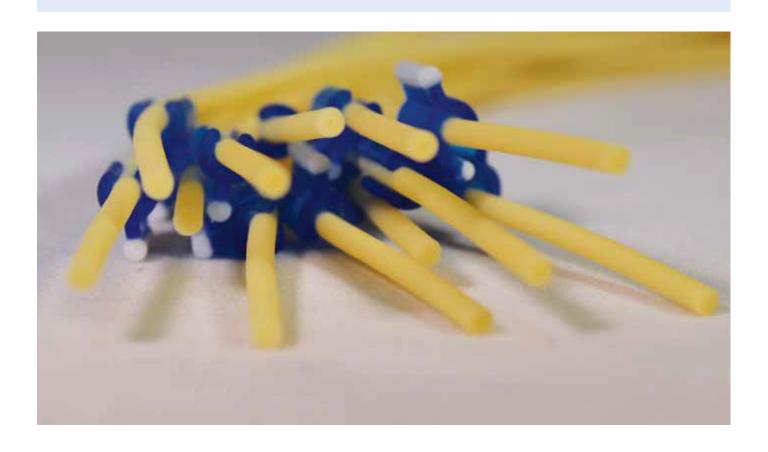
Elongation at Break:

440%

Certification:

US Pharmacopoeia Biological Test for Plastics Class IV Part XXIII FDA Drug Master File 17690

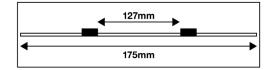
EU and China RoHS compliant, REACH Compliant, no SVHCs



Pharmaprene® pump tubes

PSC03XX Series 2 Bridge Pharmaprene® Pump Tubes

Available in packs of 12 tubes



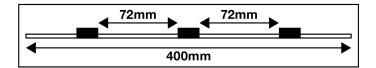
For Flared Tubing place an "F" in front of the PSC03XX series part number. For example: FPSC0326

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black		
0.19mm	Orange/Red		
0.25mm	Orange/Blue	PSC0320	
0.28mm	White/Blue		
0.31mm	Red/Blue		
0.33mm	Brown/Blue		
0.36mm	Brown/Black		
0.38mm	Orange/Green	PSC0321	
).44mm	Green/Yellow		
0.51mm	Orange/Yellow	PSC0322	
0.57mm	White/Yellow		
).64mm	Orange/White	PSC0323	
0.76mm	Black/Black	PSC0324	
).89mm	Orange/Orange	PSC0325	
0.95mm	White/Black		
1.02mm	White/White	PSC0326	
1.09mm	White/Red		
I.14mm	Red/Red	PSC0327	
1.22mm	Red/Grey		
1.30mm	Grey/Grey	PSC0328	
1.42mm	Yellow/Yellow	PSC0329	
1.52mm	Yellow/Blue	PSC0330	
1.65mm	Blue/Blue	PSC0331	
1.75mm	Blue/Green		
1.85mm	Green/Green	PSC0332	
2.06mm	Purple/Purple	PSC0333	
2.29mm	Purple/Black	PSC0334	
2.54mm	Purple/Orange	PSC0335	
2.79mm	Purple/White	PSC0336	
3.18mm	Black/White		

Pharmaprene® pump tubes

PSC03XX Series 3 Bridge Pharmaprene® Pump Tubes

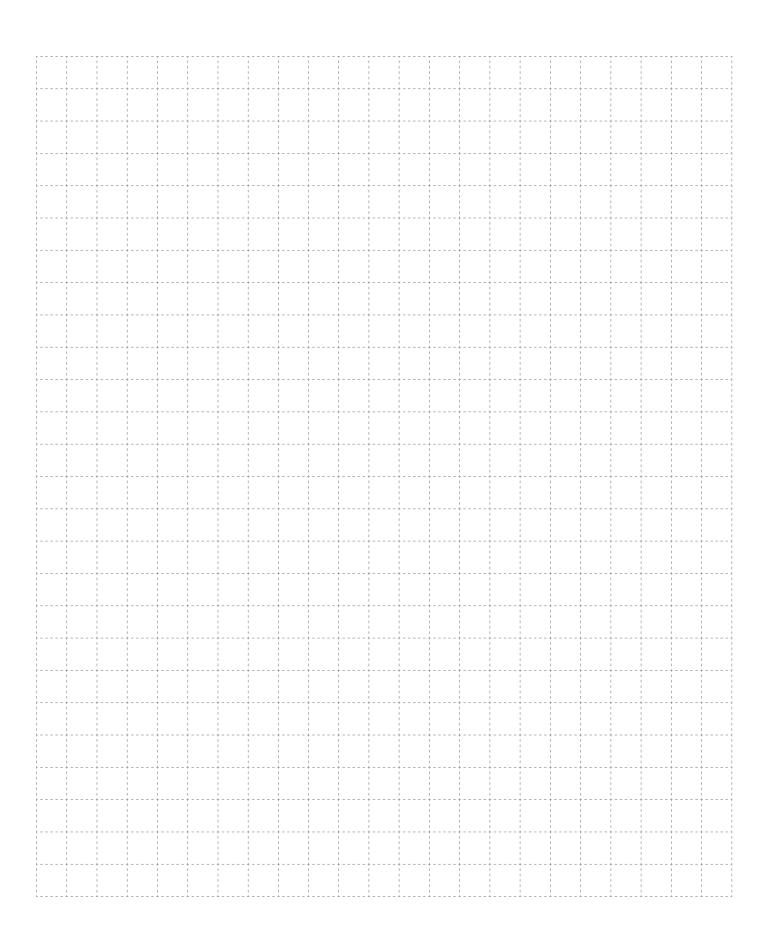
Available in packs of 12 tubes



For Flared Tubing place an "F" in front of the FSC03XX series part number. For example: FSC0311

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black/Orange		
).19mm	Orange/Red/Orange		
).25mm	Orange/Blue/Orange	PSC0303	
).28mm	White/Blue/White		
).31mm	Red/Blue/Red		
).33mm	Brown/Blue/Brown		
).36mm	Brown/Black/Brown		
).38mm	Orange/Green/Orange	PSC0304	
).44mm	Green/Yellow/Green		
).51mm	Orange/Yellow/Orange	PSC0305	
).57mm	White/Yellow/White		
).64mm	Orange/White/Orange	PSC0306	
).76mm	Black/Black/Black	PSC0307	
).89mm	Orange/Orange/Orange	PSC0308	
).95mm	White/Black/White		
1.02mm	White/White/White	PSC0309	
1.09mm	White/Red/White		
I.14mm	Red/Red/Red	PSC0310	
.22mm	Red/Grey/Red		
1.30mm	Grey/Grey/Grey	PSC0311	
1.42mm	Yellow/Yellow/Yellow	PSC0312	
1.52mm	Yellow/Blue/Yellow	PSC0313	
1.65mm	Blue/Blue/Blue	PSC0314	
1.75mm	Blue/Green/Blue		
1.85mm	Green/Green/Green	PSC0315	
2.06mm	Purple/Purple/Purple	PSC0316	
2.29mm	Purple/Black/Purple	PSC0317	
2.54mm	Purple/Orange/Purple	PSC0318	
2.79mm	Purple/White/Purple	PSC0319	
3.18mm	Black/White/Black	PSC0337	

Notes



Viton® is a proprietary type of fluoroelastomer rubber, manufactured by DuPont Industries. Viton® has one of the broadest ranges of chemical resistance in industry. We use Viton® B grade, which is regarded as an ideal type for peristaltic pump use. This combines excellent flexibility with high chemical resistance and anti-aging properties over a wide

range of environmental conditions. Viton® B is specified as a terpolymer of vinylidene fluoride, hexafluoropropylene and tetrafluoroethylene and has a higher fluid resistance than Viton® A. Viton® B is FDA approved where compliance is required.

Product:

DuPont Viton® B Fluoroelastomer

Full Name:

Viton®

Applications:

Industrial & Laboratory Ideal for Fuel and Oil Lines Aromatic Oils

Characteristics:

Exceptional Chemical Resistance
Excellent Flexibility
Wide Temperature Range
Good Peristaltic Pumping Characteristics

Excellent Anti-Aging Properties Environmentally Tough

Temperature Range

 -20° C to $+200^{\circ}$ C (-4° F to $+392^{\circ}$ F)

Sterilizations:

Not Recommended

Hardness:

60 Shore A 70 on 6mm ID and above

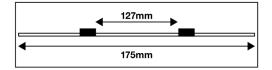
Elongation at Break:

150% - 250%



116-0651-XX Series 2 Bridge Viton® Pump Tubes

Available in packs of 12 tubes



For Flared Tubing place an "F" in front of the 116-0651-XX series part number. For example: F116-0651-13

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black		
0.19mm	Orange/Red		
0.25mm	Orange/Blue		
0.28mm	White/Blue		
0.31mm	Red/Blue		
0.33mm	Brown/Blue		
0.36mm	Brown/Black		
0.38mm	Orange/Green	116-0651-04	
0.44mm	Green/Yellow		
0.51mm	Orange/Yellow	116-0651-05	
0.57mm	White/Yellow		
0.64mm	Orange/White	116-0651-06	
0.76mm	Black/Black	116-0651-07	
0.89mm	Orange/Orange	116-0651-08	
0.95mm	White/Black		
1.02mm	White/White	116-0651-09	
1.09mm	White/Red		
1.14mm	Red/Red	116-0651-10	
1.22mm	Red/Grey		
1.30mm	Grey/Grey	116-0651-11	
1.42mm	Yellow/Yellow	116-0651-12	
1.52mm	Yellow/Blue	116-0651-19	
1.65mm	Blue/Blue	116-0651-13	
1.75mm	Blue/Green		
1.85mm	Green/Green	116-0651-14	
2.06mm	Purple/Purple	116-0651-15	
2.29mm	Purple/Black	116-0651-16	
2.54mm	Purple/Orange	116-0651-17	
2.79mm	Purple/White	116-0651-18	
3.18mm	Black/White		

188-0133-XX Series 2 Bridge Viton® Pump Tubes

Available in packs of 12 tubes

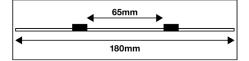


For Flared Tubing place an "F" in front of the 178+0539-XX series part number. For example: F178+0539-16

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black		
0.19mm	Orange/Red		
0.25mm	Orange/Blue		
0.28mm	White/Blue		
0.31mm	Red/Blue		
).33mm	Brown/Blue		
0.36mm	Brown/Black		
0.38mm	Orange/Green	188-0133-04*	
0.44mm	Green/Yellow		
0.51mm	Orange/Yellow	188-0133-05*	
0.57mm	White/Yellow		
0.64mm	Orange/White	188-0133-06*	
0.76mm	Black/Black	188-0133-07*	
).89mm	Orange/Orange	188-0133-08*	
0.95mm	White/Black		
1.02mm	White/White	188-0133-09*	
1.09mm	White/Red		
1.14mm	Red/Red	188-0133-10*	
1.22mm	Red/Grey	188-0133-11*	
1.30mm	Grey/Grey	188-0133-12*	
1.42mm	Yellow/Yellow		
1.52mm	Yellow/Blue		
1.65mm	Blue/Blue	188-0133-13*	
1.75mm	Blue/Green		
1.85mm	Green/Green	188-0133-14*	
2.06mm	Purple/Purple	188-0133-15*	
2.29mm	Purple/Black		
2.54mm	Purple/Orange		
2.79mm	Purple/White		
3.18mm	Black/White		

116-0830-XX Series 2 Bridge Viton® Pump Tubes

Available in packs of 12 tubes

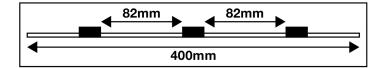


For Flared Tubing place an "F" in front of the 116-0380-XX series part number. For example: F116-0830-17

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black		
0.19mm	Orange/Red		
0.25mm	Orange/Blue		
0.28mm	White/Blue		
0.31mm	Red/Blue		
0.33mm	Brown/Blue		
0.36mm	Brown/Black		
0.38mm	Orange/Green	116-0830-04*	
0.44mm	Green/Yellow		
0.51mm	Orange/Yellow	116-0830-05*	
0.57mm	White/Yellow		
0.64mm	Orange/White	116-0830-06*	
0.76mm	Black/Black	116-0830-07*	
0.89mm	Orange/Orange	116-0830-08*	
0.95mm	White/Black		
1.02mm	White/White	116-0830-09*	
1.09mm	White/Red		
1.14mm	Red/Red	116-0830-10*	
1.22mm	Red/Grey		
1.30mm	Grey/Grey	116-0830-11*	
1.42mm	Yellow/Yellow	116-0830-12*	
1.52mm	Yellow/Blue		
1.65mm	Blue/Blue	116-0830-13*	
1.75mm	Blue/Green		
1.85mm	Green/Green	116-0830-14*	
2.06mm	Purple/Purple	116-0830-15*	
2.29mm	Purple/Black		
2.54mm	Purple/Orange		
2.79mm	Purple/White		
3.18mm	Black/White		

SC02XX Series 3 Bridge Viton® Pump Tubes

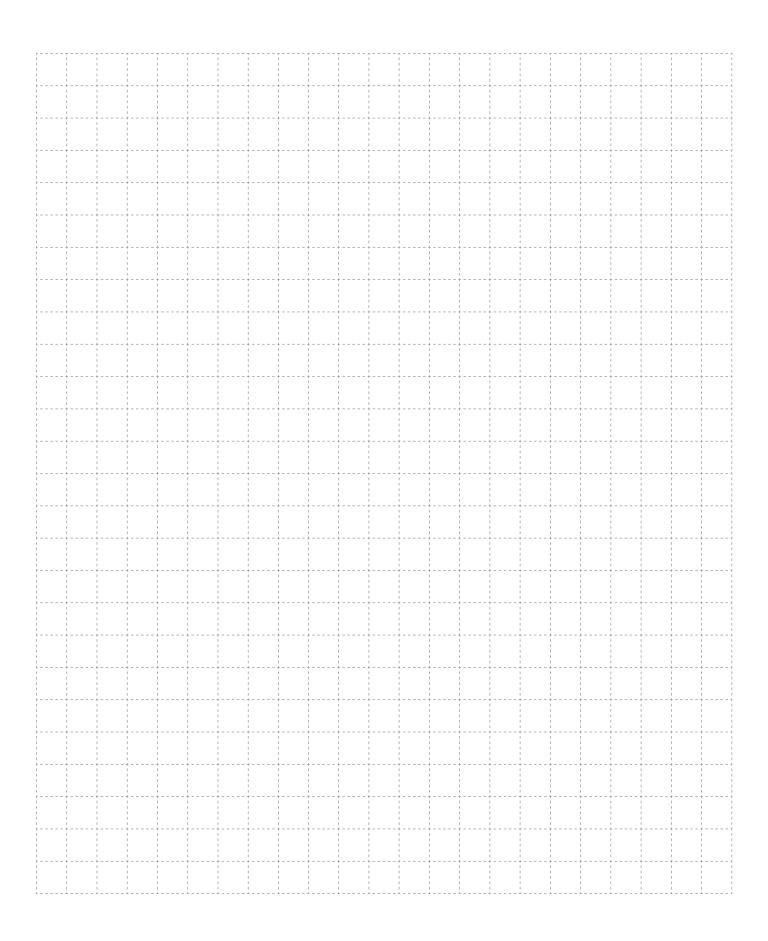
Available in packs of 12 tubes



For Flared Tubing place an "F" in front of the FSC02XX series part number. For example: FSC0257

Metric I.D.	Description	Part No.*	Color Code	
0.13mm	Orange/Black/Orange			
).19mm	Orange/Red/Orange			
).25mm	Orange/Blue/Orange			
D.28mm	White/Blue/White			
0.31mm	Red/Blue/Red			
).33mm	Brown/Blue/Brown			
).36mm	Brown/Black/Brown			
).38mm	Orange/Green/Orange	SC0254*		
).44mm	Green/Yellow/Green			
0.51mm	Orange/Yellow/Orange	SC0255		
).57mm	White/Yellow/White			
).64mm	Orange/White/Orange	SC0256		
).76mm	Black/Black/Black	SC0257		
).89mm	Orange/Orange/Orange	SC0258		
).95mm	White/Black/White			
1.02mm	White/White/White	SC0259		
1.09mm	White/Red/White			
1.14mm	Red/Red/Red	SC0260		
1.22mm	Red/Grey/Red			
1.30mm	Grey/Grey/Grey	SC0261		
1.42mm	Yellow/Yellow/Yellow	SC0262		
1.52mm	Yellow/Blue/Yellow	SC0263		
1.65mm	Blue/Blue/Blue	SC0264		
1.75mm	Blue/Green/Blue			
1.85mm	Green/Green	SC0265		
2.06mm	Purple/Purple	SC0266		
2.29mm	Purple/Black/Purple	SC0267		
2.54mm	Purple/Orange/Purple	SC0268		
2.79mm	Purple/White/Purple	SC0269		
3.18mm	Black/White/Black			

Notes



Tygon® brand Phthalate Free PVC or AutoAnalysis Tubing is a micro-bore diameter tubing used in AutoAnalyzer instruments and micro-bore peristaltic pumps. This tubing is great for harsh reagents and is clear with an excellent chemical resistance.

Product:

Phthalate Free Tygon® PVC

Full Name:

Tygon® PVC

Applications:

Peristaltic Pump, Laboratory and Pharmaceutical

Characteristics:

Supple, Strong
Excellent Pumping Life
Good Handling Characteristics
Crack Resistant
Smooth and Polished Inner Wall

Sterilizations:

Ethylene Oxide Autoclave

Hardness:

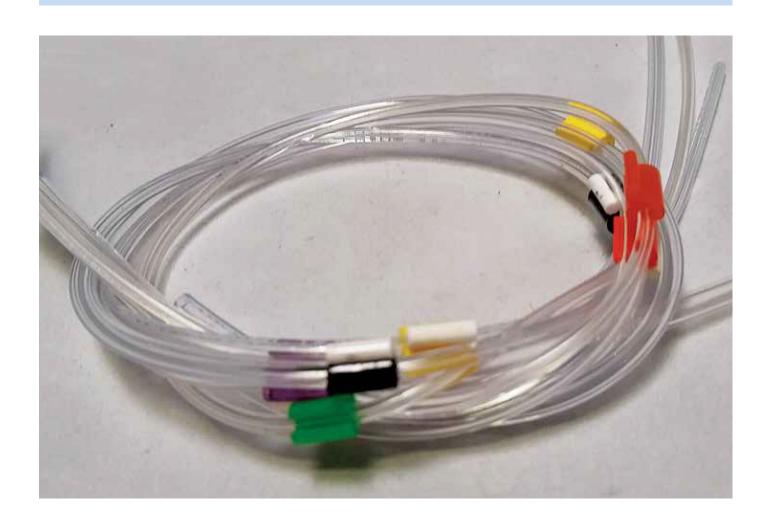
55 Shore A

Elongation at Break:

450%

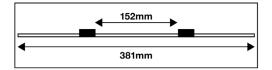
Certification:

Meets USP Class VI US Pharmacopoeia Tested and Certified



P116-0549-XX Series Tygon® PVC 2 Bridge Pump Tubes

Available in packs of 12 tubes

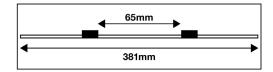


For Flared tubing place an "F" in front of the P116-0549-XX part number. For example: FP116-0549-08

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black	P116-0549-01*	
).19mm	Orange/Red	P116-0549-02	
).25mm	Orange/Blue	P116-0549-03	
).28mm**	White/Blue		
).31mm**	Red/Blue	P116-0549-20*	
).33mm**	Brown/Blue		
).36mm**	Brown/Black		
).38mm	Orange/Green	P116-0549-04	
).44mm	Green/Yellow		
).51mm	Orange/Yellow	P116-0549-05	
).57mm	White/Yellow		
).64mm	Orange/White	P116-0549-06	
).69mm	Black/Black	P116-0549-07	
).89mm	Orange/Orange	P116-0549-08	
).95mm	White/Black		
.02mm	White/White	P116-0549-09	
.09mm	White/Red		
.14mm	Red/Red	P116-0549-10	
.22mm	Red/Grey		
.25mm	Grey/Grey	P116-0549-11	
.42mm	Yellow/Yellow	P116-0549-12	
.49mm	Yellow/Blue	P116-0549-19	
.60mm	Blue/Blue	P116-0549-13	
.75mm	Blue/Green		
.81mm	Green/Green	P116-0549-14	
2.06mm	Purple/Purple	P116-0549-15	
2.20mm	Purple/Black	P116-0549-16	
2.54mm	Purple/Orange	P116-0549-17	
2.79mm	Purple/White	P116-0549-18	
3.17mm	Black/White	P116-0549-21	

P178-3748-XX Series Tygon® PVC 2 Bridge Pump Tubes

Available in packs of 12 tubes

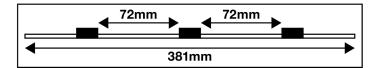


For Flared tubing place an "F" in front of the P178-3748-XX part number. For example: FP178-3748-12

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black	P178-3748-01*	
0.19mm	Orange/Red	P178-3748-02	
0.25mm	Orange/Blue	P178-3748-03	
0.28mm**	White/Blue		
0.31mm**	Red/Blue		
0.33mm**	Brown/Blue		
0.36mm**	Brown/Black		
0.38mm	Orange/Green	P178-3748-04	
0.44mm	Green/Yellow		
0.51mm	Orange/Yellow	P178-3748-05	
0.57mm	White/Yellow		
0.64mm	Orange/White	P178-3748-06	
0.69mm	Black/Black	P178-3748-07	
0.89mm	Orange/Orange	P178-3748-08	
0.95mm	White/Black		
1.02mm	White/White	P178-3748-09	
1.09mm	White/Red		
1.14mm	Red/Red	P178-3748-10	
1.22mm	Red/Grey		
1.25mm	Grey/Grey	P178-3748-11	
1.42mm	Yellow/Yellow	P178-3748-12	
1.49mm	Yellow/Blue	P178-3748-19	
1.60mm	Blue/Blue	P178-3748-13	
1.75mm	Blue/Green		
1.81mm	Green/Green	P178-3748-14	
2.06mm	Purple/Purple	P178-3748-15	
2.20mm	Purple/Black	P178-3748-16	
2.54mm	Purple/Orange	P178-3748-17	
2.79mm	Purple/White	P178-3748-18	
3.17mm	Black/White		

TSC00XX Series 3 Bridge Tygon® Pump Tubes

Available in packs of 12 tubes

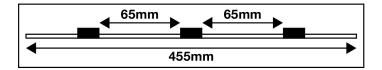


For Flared Tubing place an "F" in front of the TSC00XX series part number. For example: FTSC0061

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black/Orange		
).19mm	Orange/Red/Orange	TSC0049*	
).25mm	Orange/Blue/Orange	TSC0050	
D.28mm**	White/Blue/White		
0.31mm**	Red/Blue/Red		
).33mm**	Brown/Blue/Brown		
).36mm**	Brown/Black/Brown		
).38mm	Orange/Green/Orange		
).44mm	Green/Yellow/Green		
).51mm	Orange/Yellow/Orange	TSC0053	
).57mm	White/Yellow/White		
).64mm	Orange/White/Orange	TSC0055	
).69mm	Black/Black/Black	TSC0056	
).89mm	Orange/Orange/Orange	TSC0057	
).95mm	White/Black/White	TSC0058*	
1.02mm	White/White/White	TSC0059	
1.09mm	White/Red/White		
I.14mm	Red/Red/Red	TSC0061	
I.22mm	Red/Grey/Red		
1.25mm	Grey/Grey/Grey	TSC0063	
1.42mm	Yellow/Yellow/Yellow	TSC0064	
1.49mm	Yellow/Blue/Yellow	TSC0065	
1.60mm	Blue/Blue/Blue	TSC0066	
1.75mm	Blue/Green/Blue		
1.81mm	Green/Green	TSC0068	
2.06mm	Purple/Purple	TSC0069	
2.20mm	Purple/Black/Purple	TSC0070	
2.54mm	Purple/Orange/Purple	TSC0071	
2.79mm	Purple/White/Purple	TSC0024*	
3.17mm	Black/White/Black	TSC0073	

SK00XX Series Skalar 3 Bridge Pump Tubes

Available in packs of 12 tubes

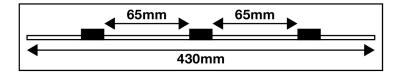


For Flared Tubing place an "F" in front of the FSK00XX series part number. For example: FSK0066

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black/Orange		
0.19mm	Orange/Red/Orange	SK0049	
0.25mm	Orange/Blue/Orange		
0.28mm	White/Blue/White	SK0050	
0.31mm	Red/Blue/Red		
).33mm	Brown/Blue/Brown		
0.36mm	Brown/Black/Brown		
0.38mm	Orange/Green/Orange	SK0051	
0.44mm	Green/Yellow/Green	SK0052	
0.51mm	Orange/Yellow/Orange	SK0053	
0.57mm	White/Yellow/White		
0.64mm	Orange/White/Orange	SK0055	
0.76mm	Black/Black/Black	SK0056	
).89mm	Orange/Orange/Orange	SK0057	
0.95mm	White/Black/White		
1.02mm	White/White/White	SK0059	
1.09mm	White/Red/White		
1.14mm	Red/Red/Red	SK0061	
1.22mm	Red/Grey/Red		
1.30mm	Grey/Grey/Grey	SK0063	
1.42mm	Yellow/Yellow/Yellow	SK0064	
1.52mm	Yellow/Blue/Yellow	SK0065	
1.65mm	Blue/Blue/Blue	SK0066	
1.75mm	Blue/Green/Blue		
1.85mm	Green/Green	SK0068	
2.06mm	Purple/Purple	SK0069	
2.29mm	Purple/Black/Purple	SK0070	
2.54mm	Purple/Orange/Purple	SK0071	
2.79mm	Purple/White/Purple	SK0072	
3.18mm	Black/White/Black	SK0073	

TSC00XX Series 3 Bridge Tygon® Pump Tubes

Available in packs of 12 tubes



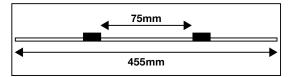
For Flared Tubing place an "F" in front of the FTSK00XX series part number. For example: FTSK0070

Metric I.D.	Description	Part No.*	Color Code	
0.13mm	Orange/Black/Orange	TSK0060*		
0.19mm	Orange/Red/Orange			
0.25mm	Orange/Blue/Orange			
0.28mm**	White/Blue/White			
0.31mm**	Red/Blue/Red			
0.33mm**	Brown/Blue/Brown			
0.36mm**	Brown/Black/Brown			
0.38mm	Orange/Green/Orange	TSK0051*		
0.44mm	Green/Yellow/Green			
0.51mm	Orange/Yellow/Orange	TSK0053*		
0.57mm	White/Yellow/White			
0.64mm	Orange/White/Orange	TSK0055*		
0.69mm	Black/Black/Black	TSK0056*		
0.89mm	Orange/Orange/Orange	TSK0057*		
0.95mm	White/Black/White			
1.02mm	White/White/White	TSK0059*		
1.09mm	White/Red/White			
1.14mm	Red/Red/Red	TSK0061*		
1.22mm	Red/Grey/Red			
1.25mm	Grey/Grey/Grey	TSK0063*		
1.42mm	Yellow/Yellow/Yellow	TSK0064*		
1.49mm	Yellow/Blue/Yellow	TSK0065*		
1.60mm	Blue/Blue/Blue	TSK0066*		
1.75mm	Blue/Green/Blue			
1.81mm	Green/Green	TSK0068*		
2.06mm	Purple/Purple/Purple	TSK0069*		
2.20mm	Purple/Black/Purple	TSK0070*		
2.54mm	Purple/Orange/Purple	TSK0071*		
2.79mm	Purple/White/Purple	TSK0072*		
3.17mm	Black/White/Black			

what is listed by no more than +/- .03mm

FUT-0651-XX Series Viton® Pump Tubes

Available in packs of 12 tubes

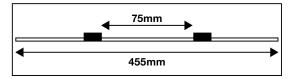


For Flared tubing place an "F" in the back of the FUT-0651-XX part number. For example: FUT-0651-10-F

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black		
0.19mm	Orange/Red		
0.25mm	Orange/Blue	FUT-0651-03*	
0.28mm	White/Blue		
0.31mm	Red/Blue		
0.33mm	Brown/Blue		
0.36mm	Brown/Black		
0.38mm	Orange/Green	FUT-0651-04*	
0.44mm	Green/Yellow		
0.51mm	Orange/Yellow	FUT-0651-05	
0.57mm	White/Yellow		
0.64mm	Orange/White	FUT-0651-06	
0.76mm	Black/Black	FUT-0651-07	
0.89mm	Orange/Orange	FUT-0651-08	
0.95mm	White/Black		
1.02mm	White/White	FUT-0651-09	
1.09mm	White/Red		
1.14mm	Red/Red	FUT-0651-10	
1.22mm	Red/Grey		
1.30mm	Grey/Grey	FUT-0651-11	
1.42mm	Yellow/Yellow	FUT-0651-12	
1.52mm	Yellow/Blue	FUT-0651-19	
1.65mm	Blue/Blue	FUT-0651-13	
1.75mm	Blue/Green		
1.85mm	Green/Green	FUT-0651-14	
2.06mm	Purple/Purple	FUT-0651-15	
2.29mm	Purple/Black	FUT-0651-16	
2.54mm	Purple/Orange	FUT-0651-17*	
2.79mm	Purple/White	FUT-0651-18	
3.18mm	Black/White		

FUT-3748-XX Series Futura PVC Pump Tubes

Available in packs of 12 tubes

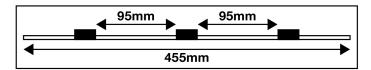


For Flared tubing place an "F" in the back of the FUT-3748-XX part number. For example: FUT-3748-10-F

Metric I.D.	Description	Part No.*	Color Code
0.13mm	Orange/Black		
0.19mm	Orange/Red		
0.25mm	Orange/Blue	FUT-3748-03	
0.28mm	White/Blue		
0.31mm	Red/Blue		
0.33mm	Brown/Blue		
0.36mm	Brown/Black		
0.38mm	Orange/Green	FUT-3748-04	
0.44mm	Green/Yellow		
0.51mm	Orange/Yellow	FUT-3748-05	
0.57mm	White/Yellow		
0.64mm	Orange/White	FUT-3748-06	
0.76mm	Black/Black	FUT-3748-07	
0.89mm	Orange/Orange	FUT-3748-08	
0.95mm	White/Black		
1.02mm	White/White	FUT-3748-09	
1.09mm	White/Red		
1.14mm	Red/Red	FUT-3748-10	
1.22mm	Red/Grey		
1.30mm	Grey/Grey	FUT-3748-11	
1.42mm	Yellow/Yellow	FUT-3748-12	
1.52mm	Yellow/Blue	FUT-3748-19	
1.65mm	Blue/Blue	FUT-3748-13	
1.75mm	Blue/Green		
1.85mm	Green/Green	FUT-3748-14	
2.06mm	Purple/Purple	FUT-3748-15	
2.29mm	Purple/Black	FUT-3748-16	
2.54mm	Purple/Orange	FUT-3748-17	
2.79mm	Purple/White	FUT-3748-18	
3.18mm	Black/White		

TS-95-XX Series 3 Bridge Pump Tubes

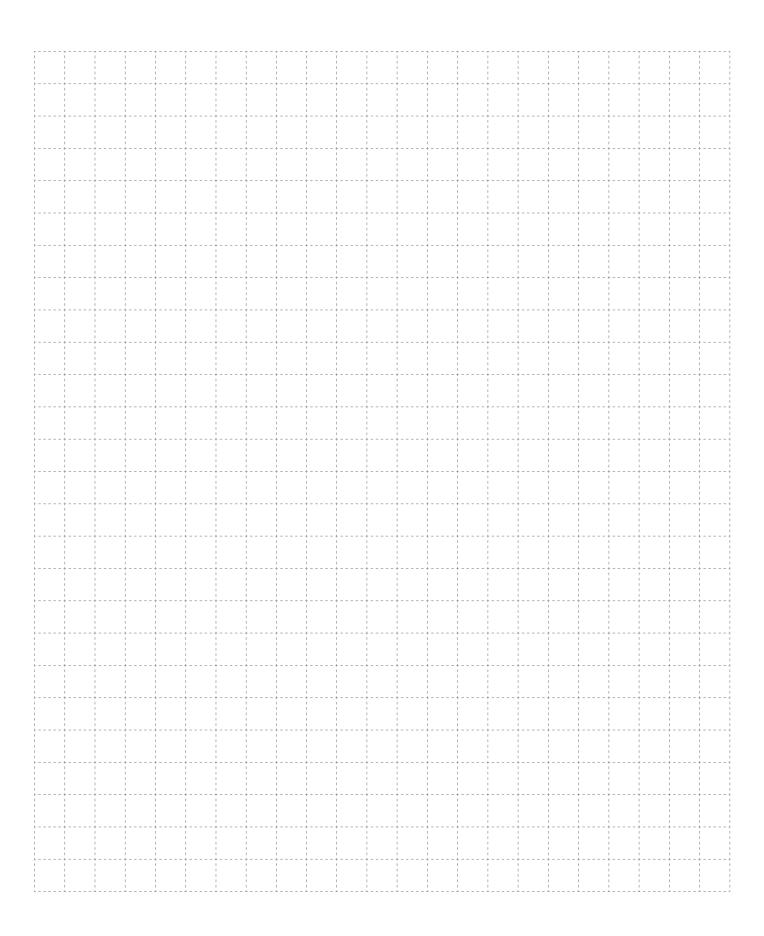
Available in packs of 12 tubes



Available in PVC, Solva, Silicone, Santoprene,® Pharmaprene® and Viton® materials. For Flared tubing place an "F" in the back of the TS-95-XX part number. For example: TS-95-09-F Add an -S for Solva, -SN for Santoprene, -V for Viton, -SI for Silicone and -Ph for Pharmaprene at the end of each part number to designate the material type.

Metric I.D.	Description	Part No.*	Color Code	
0.13mm	Orange/Black/Orange	TS-95-01		
0.19mm	Orange/Red/Orange			
0.25mm	Orange/Blue/Orange	TS-95-03		
0.28mm	White/Blue/White			
0.31mm	Red/Blue/Red	TS-95-20		
0.33mm	Brown/Blue/Brown			
0.36mm	Brown/Black/Brown			
0.38mm	Orange/Green/Orange	TS-95-04		
0.44mm	Green/Yellow/Green			
0.51mm	Orange/Yellow/Orange	TS-95-05		
0.57mm	White/Yellow/White			
0.64mm	Orange/White/Orange	TS-95-06		
0.76mm	Black/Black/Black	TS-95-07		
0.89mm	Orange/Orange/Orange	TS-95-08		
0.95mm	White/Black/White			
1.02mm	White/White/White	TS-95-09		
1.09mm	White/Red/White			
1.14mm	Red/Red/Red	TS-95-10		
1.22mm	Red/Grey/Red			
1.30mm	Grey/Grey/Grey	TS-95-11		
1.42mm	Yellow/Yellow/Yellow	TS-95-12		
1.52mm	Yellow/Blue/Yellow	TS-95-19		
1.65mm	Blue/Blue/Blue	TS-95-13		
1.75mm	Blue/Green/Blue			
1.85mm	Green/Green	TS-95-14		
2.06mm	Purple/Purple/Purple	TS-95-15		
2.29mm	Purple/Black/Purple	TS-95-16		
2.54mm	Purple/Orange/Purple	TS-95-17		
2.79mm	Purple/White/Purple	TS-95-18		
3.18mm	Black/White/Black	TS-95-21		

Notes



Bulk transmission tubing

Available in 1 meter increments

We offer bulk transmission tubing (also known as macro-bore pump tubing) for our customers. We carry many different sizes of tubing for a variety of different peristaltic pump applications. Note: The PVC tubing is the only tubing that has the size of the tubing printed on the tubing.

Metric I.D.	PVC Transmission Tubing Part No.*	Print Color	Solva Transmission Tubing Part No.*	Silicone Transmission Tubing Part No.*	Santoprene® Transmission Tubing Part No.*	Pharmaprene® Transmission Tubing Part No.*	Viton [®] Transmission Tubing Part No.*
0.13mm	116-0536-01M		116-0537-01*		GPR-0013-008M	PPR-0013-008M	
0.19mm	116-0536-02M		116-0537-02*				
0.25mm	116-0536-03M				GPR-0025-008M	PPR-0025-008M	
0.28mm							
0.31mm	116-0536-20M*						
0.33mm							
0.36mm							
0.38mm	116-0536-04M		116-0537-04M	HS-0038-009M	GPR-0038-008M	PPR-0038-008M	116-0538-04M
0.44mm							
0.51mm	116-0536-05M		16-0537-05M	HS-0051-009M	GPR-0051-008M	PPR-0051-008M	116-0538-05M
0.57mm							
0.64mm	116-0536-06M		116-0537-06M	HS-0064-009M	GPR-0064-008M	PPR-0064-008M	116-0538-06M
0.76mm	116-0536-07M		116-0537-07M	HS-0076-009M	GPR-0076-008M	PPR-0076-008M	116-0538-07M
0.89mm	116-0536-08M		116-0537-08M	HS-0089-009M	GPR-0089-008M	PPR-0089-008M	116-0538-08M
0.95mm							
1.02mm	116-0536-09M		116-0537-09M	HS-0102-009M	GPR-0102-008M	PPR-0102-008M	116-0538-09M
1.09mm							
1.14mm	116-0536-10M		116-0537-10M	HS-0114-009M	GPR-0114-008M	PPR-0114-008M	116-0538-10M
1.22mm							
1.30mm	116-0536-11M		116-0537-11M	HS-0130-009M	GPR-0130-008M	PPR-0130-008M	116-0538-11M
1.42mm	116-0536-12M		116-0537-12M	HS-0142-009M	GPR-0142-008M	PPR-0142-008M	116-0538-12M
1.52mm	116-0536-19M		116-0537-19M	HS-0152-009M	GPR-0152-008M	PPR-0152-008M	116-0538-19M
1.65mm	116-0536-13M		116-0537-13M	HS-0165-009M	GPR-0165-008M	PPR-0165-008M	116-0538-13M
1.75mm							
1.85mm	116-0536-14M		116-0537-14M	HS-0185-009M	GPR-0185-008M	PPR-0185-008M	116-0538-14M
2.06mm	116-0536-15M		116-0537-15M	HS-0206-009M	GPR-0206-008M	PPR-0206-008M	116-0538-15M
2.29mm	116-0536-16M		116-0537-16M	HS-0229-009M	GPR-0229-008M	PPR-0229-008M	116-0538-16M
2.54mm	116-0536-17M		116-0537-17M	HS-0254-009M	GPR-0254-008M	PPR-0254-008M	116-0538-17M
2.79mm	116-0536-18M		116-0537-18M	HS-0279-009M	GPR-0279-008M	PPR-0279-008M	116-0538-18M
3.18mm	116-0536-21M		116-0537-21M*				

Tygon® transmission tubing - phthalate free

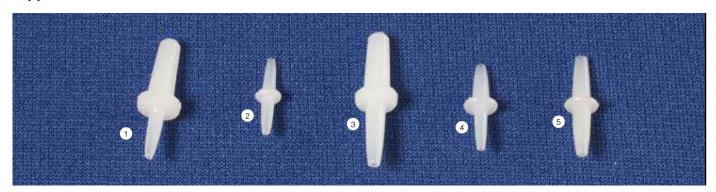
We offer bulk transmission tubing (also known as continuous tubing) for our customers. We carry many different sizes of tubing for different peristaltic pump applications.

Our bulk tubing sold by the meter and is the Phthalate Free LMT-55 formula.

Metric I.D.	Tygon® Transmission Tubing Part No.*
0.13mm	P116-0536-01M
0.19mm	P116-0536-02M
0.25mm	P116-0536-03M
0.28mm	
0.31mm	
0.33mm	
0.36mm	
0.38mm	P116-0536-04M
0.44mm	
0.50mm	P116-0536-05M
0.57mm	
0.64mm	P116-0536-06M
0.76mm	P116-0536-07M
0.89mm	P116-0536-08M
0.95mm	
1.02mm	P116-0536-09M
1.09mm	
1.14mm	P116-0536-10M
1.22mm	
1.30mm	P116-0536-11M
1.42mm	P116-0536-12M
1.52mm	P116-0536-19M
1.65mm	P116-0536-13M
1.75mm	
1.85mm	P116-0536-14M
2.06mm	P116-0536-15M
2.29mm	P116-0536-16M
2.54mm	P116-0536-17M
2.79mm	P116-0536-18M
3.18mm	
	* Blank Part numbers or numbers with an asterisk at the end are special ordered items which may result in an minimum order requirement, longer lead times or may not be available.

Miscellaneous

Nipple connectors



Our connectors are molded from high density polyethylene for long life and structural strength. The connectors are designed with a smooth concentric and have no flashing. This eliminates bubble pattern break-up. They are designed to prevent popping of transmission lines and are chemically clean.

All connectors are sold in packs of 6. We also offer special order platinum and stainless steel connectors upon request.

Ref #	Part number	Description	Unit of measurement
1	116-0002-01	Nipple N5, Small Tubing to Glass	Packs of 6
2	116-0003-01	Nipple N8, Small Tubing to Small Tubing	Packs of 6
3	116-0004-01	Nipple N6, Large Tubing to Glass	Packs of 6
4	116-0005-01	Nipple N7, Small Tubing to Large Tubing	Packs of 6
5	116-0010-01	Nipple N9, General Large Tubing Use	Packs of 6

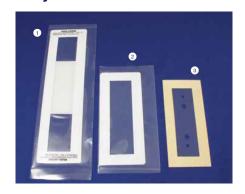
Reduction coils



Reduction coils are designed to reduce Nitrate to Nitrite for Nitrate analyses. They are used on continuous flow auto-analyzer instruments. They are sold individually with a tube connector (not shown in the picture.)

Part number	Description	Unit of measurement	Comments
116-0002-01	Reduction Coil - 12"	Each	Red coated tubing
116-0003-01	Reduction Coil - 24"	Each	Red coated tubing
116-0004-01	Reduction Coil - 12"	Each	Purple coated tubing

Dialyzer membranes



Designed to assist in the separation of gas and/or chemicals in continuous

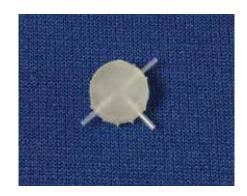
flow analyzers. For use in the laboratory, pharmaceutical and industrial applications.

Ref #	Part number	Description	Unit of measurement
1	170-0472-02	Dialyzer Membranes 12"	Packs of 12
2	170-0406-02	Dialyzer Membranes 6"	Packs of 12
3	157-B129-01	CO2 Dialyzer Membrane	Each

Miscellaneous

3 way sapphire splitter

Part number	116-B332-01
Description	This splitter is designed for splitting the sample line. The sapphire helps to reduce sample carryover.
Unit of messure	Each



Blue lead bulbs

Part number	112-B007-01
Description	A replacement long life lamp for the SCIC Colorimeter (AA2).
Unit of messure	Packs of 6



TrAAcs Lamp 800/2000

Part number	165-B032-01
Description	Replacement lamp for original TrAAcs instrument.
Unit of messure	Each



3 way sapphire splitter

Part number	199-B021-01			
Description	Designed for SCIC Colorimeter (AA2)			
Unit of messure	Each			



Chemical resistance

Note: The data provided in these tables are for reference and are not binding. We recommend conducting your own testing to be sure that the medium will be compatible with the pump tube material.

Example Test: Place a sample pump tube in the medium to be delivered for 48 hours. If there is a loss in weight and / or elasticity the pump tube is not compatible. (Test Pump Tubes are available on request.)

Medium	PVC	Silicone	Viton	PVCSolva	Santoprene
Acetaldehyde	U	Х	U	Х	Х
Acetates (low mol. wt.)	U	0	U	X	X
Acetic acid(< 5 %)	Χ	X	Χ	Χ	X
Acetic acid(> 5 %)	Χ	U	0	X	X
Acetic anhydride	0	0	U	X	U
Acetone	U	X	U	U	U
Acetyl bromide	U			X	
Acetyl chloride	U	Χ			
Air	Χ	Χ	Χ	X	Χ
Alcohols	Χ	Χ	Χ	X	
Aliphatic hydrocarbons	Χ	0	U	U	
Aluminium chloride	Χ	0	Χ	Χ	
Aluminium sulfate	Χ	Χ	Χ	Χ	Χ
Alums	Χ	Χ	Χ		
Ammonia (gas-liquid)	0	Χ	U	Χ	Χ
Ammonium acetate	Χ			Χ	
Ammonium carbonate	Χ	Χ			
Ammonium chloride	Χ	Χ	Χ		
Ammonium hydroxide	0	Χ	Χ	Χ	Χ
Ammonium nitrate	Χ	0	Χ		
Ammonium phosphate	Χ	Χ	Χ		
Ammonium sulfate	Χ	Χ	Χ	Χ	Χ
Amyl acetate	U	U	U	U	U
Amyl alcohol	Χ	U	Χ	U	X
Amyl chloride	0	U	Χ	U	
Aniline	0	U	0	X	X
Aniline hydrochloride	0	U	Χ	X	
Animal oils	U	0	Χ	Χ	X
Antimony salts	Χ	0	Χ		
Aqua regia	U	0	Χ	U	
Aromatic hydrocarbons	U	0	Χ	U	
Arsenic salts	Χ	Х	Χ	Χ	
Barium salts	Χ	X	Χ	X	X
Benzaldehyde	U	U	U	U	Χ
Benzene	0	U	Χ	U	U
Benzene sulfonic acid	0		Χ	Χ	
Benzoic acid	X	0	Χ	U	U

Medium	PVC	Silicone	Viton	PVCSolva	Santoprene
Benzyl alcohol	X	Jincone	X	U	X
Bleaching liquors	X	0	X	X	X
Boric acid	X	X	X	X	X
Bromine	X	U	X	X	U
Butane	0	U	X	U	U
Butanol	X	0	X		
Butyl acetate	U		U		U
Butyric acid	U		0	X	X
sayire deld					,,
Calcium salts	X	0	X	Χ	X
Carbon bisulfide	U		Χ	U	
Carbon dioxide	Χ	0	Χ	X	X
Carbon tetrachloride	0	U	Χ	X	U
Chloracetic acid	U		U	X	U
Chlorbenzene	U		Χ	U	U
Chlorine (wet)	0	U	Χ	X	U
Chlorine (dry)	0	U	U	Х	U
Chloroform	0	U	Χ	U	U
Chlorsulfonic acid	0	U	U	X	U
Chromatic acid	Χ	U	Χ		X
Chromium salts	Χ			Х	X
Copper salts	Χ	X	Χ	X	X
Cresol	0	Χ	X	U	U
Cyclohexanone	U	U	Χ	U	U
Essential oils	0			Χ	Χ
Ethers	0	U	0	U	U
Ethyl acetate	U	0	U	U	U
Ethyl alcohol	0	0	Χ	Χ	Χ
Ethyl bromide	U		Χ	Х	
Ethyl chloride	U	U	Χ	Χ	U
Ethylamine	U		U	Χ	
Ethylene chlorohydrin	U	U	Χ	Xh	U
Ethylene di-chloride	U	U	Χ	X	U
Ethylene glycol	Χ	Χ	Χ	Χ	Χ
Fatty acids	0	0	Χ	X	
Ferric chloride	Χ	0	Χ	Χ	

Chemical resistance

Medium	PVC	Silicone	Viton	PVCSolva	Santoprene
Ferric sulfate	Χ	0	Χ	Χ	Χ
Ferrous chloride	Χ	0	Χ	Χ	
Ferrous sulfate	Χ	0	Χ	Χ	
Fluoborate salts	Χ	Χ	Χ		
Fluoboric acid	Χ	X	Χ		
Fluo-silicic acid	Χ	X	Χ		
Formaldehyde	Χ	0	U	Χ	X
Formic acid	Χ	0	U	Χ	Х
Freon	U	U	0	U	U
Gasoline (non-aromatic)	U	U	Х	U	U
Gasoline (high aromatic)	U	U	X	U	
Glucose	Х	Χ	Χ	Χ	X
Glue	Χ		Χ	Χ	
Glycerine	Χ	Χ	Χ	Χ	Χ
Hydriodic acid	Χ		Χ	Χ	
Hydro-bromic-acid	Χ	U	Χ	Χ	Χ
Hydrochloric acid (dil.)	X	U	Х	Χ	X
Hydrochloric acid (med.cone.)	X	U	Χ	X	X
Hydrochloric (cone.)	0	U	Χ	Χ	Χ
Hydrocyanic acid	Χ	U	Χ	Χ	Χ
Hydrofluoric acid	0	U	Χ	Χ	0
Hydrogen peroxide (dil.)	X	X	Х	X	U
Hydrogen peroxyde (cone.)	U	U	0	X	U
Hydrogen sulfide	Χ	U	U	Χ	Χ
Hypochlorus acid	Χ		Χ	Χ	Χ
lodin and solutions	Χ		Χ	U	Χ
Kerosene	U	U	Χ	U	
Ketones	U	U	U	U	
Laquer solvents	U	U	U	Χ	U
Lactic acid	0	Χ	U	0	
Lead acetate	X	U	U	Χ	
Linseed oil	Χ	X	Χ	U	Х
Magnesium chloride	Χ	X	Χ	Χ	
Magnesium sulfate	Χ	X	Χ	Χ	
Malic acid	X	X	Χ	Х	X
	Χ	Χ	X	Χ	Χ

Medium	PVC	Silicone	Viton	PVCSolva	Santoprene
Mercury salts	X	X	X	X	Santopiene
Mixed acid 1)	0	X	X		
Wined acid 1)	0				
Naphtha	0	U	Χ	Χ	U
Natural gas	Χ	X	Χ	U	X
Nickel salts	Χ	Χ	Χ	Χ	Χ
Nitric acid (dil.)	Χ	0	Χ	X	0
Nitric acid (med. cone.)	0	U	Χ	X	0
Nitric acid (cone.)	0	U	0	X	0
Nitrobenzene	U	U	Χ	U	U
Nitrogen oxides	Χ	0	0	Χ	Χ
Nitrous acid	Χ	0	Χ	U	
Oils, animal	U	0	Χ	X	Χ
Oils, mineral	U	0	Χ	U	Χ
Oils, vegetable	0	Χ	Χ	Χ	Χ
Oleic acid	U	U	0	Χ	0
Oxalic acid	Χ	0	Χ	Χ	Χ
Oxygen (gas)	Χ	Χ		Χ	Χ
Perchloric acid	U	U	Χ	X	X
Phenol	0	U	Χ	U	U
Phosphoric acid (ortho.)	Χ	0	Χ	X	X
Phtalic acid	Χ	X	Χ	U	Х
Plating solutions	Χ	U	Χ	X	Х
Potassium carbonate	Χ	Χ	Χ		
Potassium chlorate	Χ	Χ	Χ		
Potassium hydroxyde	0	0	Χ	Χ	Χ
Potassium iodide	Χ	Χ	Χ		
Pyridine	U	U	U	Χ	U
Silver nitrate	Χ	X	Χ	X	X
Soap solutions	Χ	X	Χ	X	X
Sodium bicarbonate	X	X	X	X	X
Sodium bisulfate	X		X	X	X
Sodium bisulfite	X	X	X	X	X
Sodium borate	X	X	X	X	X
Sodium carbonate	X	X	X	X	X
Sodium chlorate	X		X	X	X
Sodium chloride	X	X	X	X	X
Sodium ferrocyanide	X		X	X	X
Sodium hydrosulfite	X	0	X	X	
Sodium hydroxide (dil.)	X	0	X	X	0
Sodium hydroxide (med.cone.)	0	0	Х	X	0

Chemical resistance

Medium	PVC	Silicone	Viton	PVCSolva	Santoprene
Sodium hydroxide	0	0	0	X	0
(cone.)					
Sodium hypochlorite	X		X	X	X
Sodium nitrate	X	U		X	X
Sodium silicate	X		X	X	X
Sodium sulfide	X	X	X	X	
Sodium sulphite	X	X	X	X	X
Stearic acid	X	0		X	X
Sulfur chloride	0	U	X	X	U
Sulfur dioxide	X	0	X	X	X
Sulfur trioxide	X	0	X	X	X
Sulfuric acid (dil.)	X	U	X	X	0
Sulfuric acid (Med. cone.)	X	U	Х	X	0
Sulfuric acid (cone.)	0	U	Χ	Χ	0
Sulfurous acid	Χ	U	Χ	Χ	Χ
Tannic acid	Χ	0	Χ	Χ	X
Tanning extracts	Χ		Χ	Χ	Χ
Tartaric acid	Χ	0	Χ	Χ	
Tin salts	Χ			Χ	
Titanium salts	Χ			Χ	
Toluol	Χ	U	Χ	U	
Trichloracetic acid	U		U	Χ	
Tri-sodium phosphate	U	Χ	Χ	Χ	
Turpentine	Χ	U	Χ	U	
Urea	Χ	Χ	Χ	Χ	Х
Uric acid	Χ			Χ	Χ
Water	Χ	Χ	Χ	Χ	Χ
Water (brine)	Χ	Χ	Χ	Χ	Χ
Xylol	U	U	Χ	U	U
Zinc chloride	Χ				
Food products	0				
Alcohol	0	Χ			0
Beer	0				X
Brandy	X	Χ			0
Butter	X				0
Carrot	X				0
Cerio	X				0

Medium	PVC	Silicone	Viton	PVCSolva	Santoprene
Citric acic	X				0
Fish	X				0
Fruit Juices	Χ				0
Karo Syrup	X				0
Mayonnaise	Χ				0
Milk	Χ				0
Milk of Magnesia	X				0
Molasses	Χ				0
Sauerkraut	X				0
Sea Foods	Χ				0
Sugar	Χ				0
Tomato	X				0
Vegetable oil	Χ	Χ			0
Vinegar	Χ	Х			0
Whiskey	0	Х			0
Wines	0				0
1) 40% Sulphuric ,					
15% Nitric					

Legend:

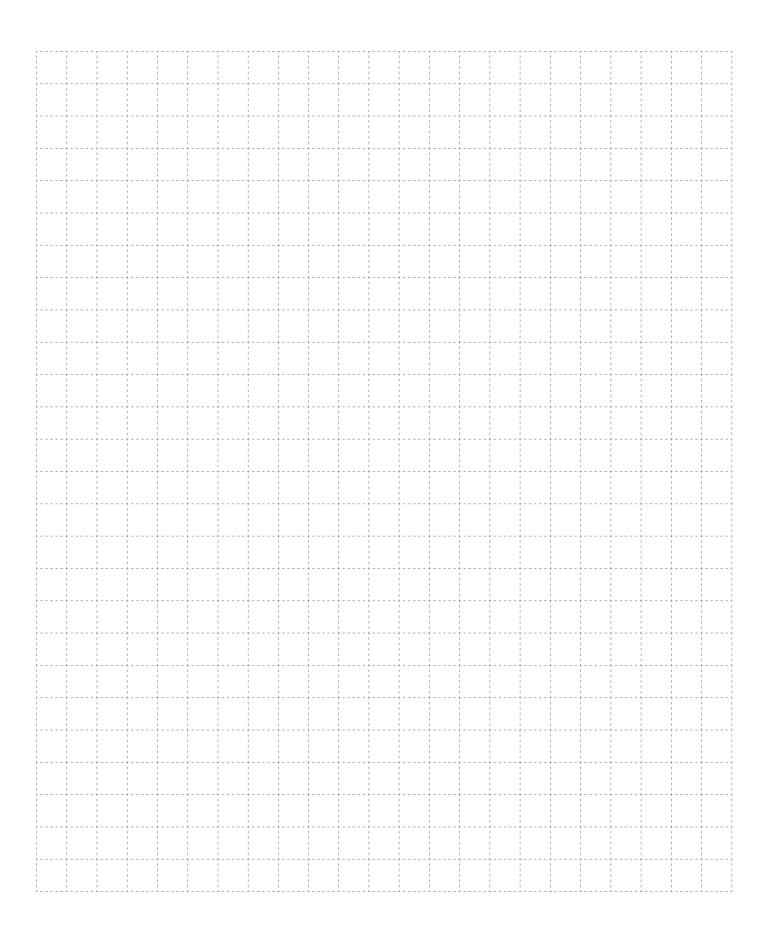
X = Satisfactory

O = Use only after testing

U = Unsatisfactory

= No data available

Notes



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