

Sanitary Hose and Fittings

Pharmaceutical
Biotech
Food and Beverage
High Purity Water
Potable Water
Cosmetics
Photochemical
Semiconductor



Biotechnic

SANITARY PROCESS COMPONENTS

Biotechnic technosil™

Platinum Cured, Non-Reinforced, BioPharmaceutical Grade Silicone Tubing

Physical Properties*

Hardness, Shore A ± 5	60
Tensile Strength, psi	1300
Elongation at Break, %	650
Tear Resistance, Die B ppi	200
Brittle Temperature, °F	-100
Maximum Operating Temp, °F	400
Comp. Set, 22 hrs. @ 350 F, %	30

Values listed are typical and are meant only as guide to aid in design.
Field testing should be performed to find the actual values for your application.

Features

- Ultra Smooth Bore
- BioPharmaceutical Grade
- Ultra-Flexible
- Will Not Support Bacteria Growth
- Autoclavable/Sterilizabile
- Imparts No Taste or Odor
- Platinum Cured
- Non-Reactive to Body Tissues & Fluids

Applications

- Peristaltic Pumps
- Pharmaceutical Processing & Transfer
- Food, Beverage & Dairy Service
- Laboratory Uses
- Blood & Biological Fluid Handling
- Sterile Filling
- Surgical Drains

Approvals

- USP 24 Class VI
- Meets 3A Standards
- Meets or Exceeds FDA 26 CFR 177.2600
- USDA Dairy Acceptance
- Manufactured Under Good Manufacturing Practice (GMP).

Note: *technosil*™ is not recommended for implant or in-body uses. Care is recommended in the selection and application of fittings and clamps. Avoid sharp, barbed fittings which could tear into the hose wall and cause possible failure.

Exposure to repeated steam sterilization, or long-term elevated temperatures or pressure, will cause deterioration of silicone hoses. The hose may become gummy and should be replaced.



technosil™ platinum cured silicone hose is an ultra-flexible, high purity, autoclavable hose. *technosil*™ is manufactured with Dow Corning Silastic® brand medical grade Silicone elastomer.

Temperature Range: -80°F to 500°F

technosil™

Peristaltic Pump & Transfer Silicone Tubing

Item	ID x OD x Wall (inches)	OEM Pump Size
TSIL-012	.012 X .024 X .006	NA
TSIL-020	.02 X .036 X .008	NA
TSIL-025	.025 X .047 X .011	NA
TSIL-030	.03 X .066 X .018	NA
TSIL-030-B	1/32 X 5/32 X 1/16	13
TSIL-040	.04 X .086 X 0.23	NA
TSIL-058	0.58 X 0.76 X .009	NA
TSIL-062	1/16 X 3/32 X 1/64	NA
TSIL-062-A	1/16 X 1/8 X 1/32	NA
TSIL-062-B	1/16 X 3/16 X 1/16	14
TSIL-078	5/64 X 1/8 X 3/128	NA
TSIL-100	0.1 X 0.19 X 0.04	NA
TSIL-132	.132 X .18 X .025	NA
TSIL-0125-B	1/8 x 1/4 x 1/16	16
TSIL-0187-B	3/16 x 5/16 x 1/16	3, 25
TSIL-0187-C	3/16 x 3/8 x 3/32	15
TSIL-0250-B	1/4 x 3/8 x 1/16	17
TSIL-0250-C	1/4 x 7/16 x 3/32	24
TSIL-0250-D	1/4 x 1/2 x 1/8	26
TSIL-0312-B	5/16 x 7/16 x 1/16	18
TSIL-0312-C	5/16 x 1/2 x 3/32	NA
TSIL-0375-B	3/8 x 1/2 x 1/16	NA
TSIL-0375-C	3/8 x 9/16 x 3/32	NA
TSIL-0375-D	3/8 x 5/8 x 1/8	73
TSIL-0500-C	1/2 x 11/16 x 3/32	19
TSIL-0500-D	1/2 x 3/4 x 1/8	81,82
TSIL-0500-E	1/2 x 7/8 x 3/16	88
TSIL-0625-D	5/8 x 7/8 x 1/8	NA
TSIL-0750-D	3/4 x 1-1/4 x 1/4	90
TSIL-1000-E	1 x 1-3/8 x 3/16	92

Other sizes available upon request.
Sold by standard coil length only.
Available in 50 ft. coil lengths.

Biotechnic technosil™ 650

**316L SS Helix Wire-Reinforced
Platinum Cured Silicone Hose
With Multi-Ply Nomex®
Fabric Reinforcement**

Physical Properties*

	Core	Cover
Hardness, Shore A	70	60
Tensile Strength, psi	1200	1150
Elongation at Break, %	350	425
Brittle Temperature, °F	-80	-80
Max. Cont. Operating Temp, °F	350	350

Values listed are typical and are meant only as a guide to aid in design.
Field testing should be performed to find the actual values for your application.

Features

- Ultra-Smooth Bore
- BioPharmaceutical Grade
- Excellent Bend Radius
- Will Not Support Bacteria Growth
- Autoclavable/Sterilizable
- Imparts No Taste or Odor
- Platinum Cured
- Available in 12 Ft. Lengths

Applications

- Load Cells
- Pharmaceutical Processing & Transfer
- Food, Beverage & Dairy Service
- Bulk Transfer
- Vacuum Pump Applications
- Blood & Biological Fluid Handling
- Sterile Filling



technosil™ Braided platinum cured silicone hose is an ultra-flexible, high purity, autoclavable hose. **technosil™** Braided is manufactured with Dow Corning Silastic® brand silicone resin. **technosil™** Braided hose developed for applications where higher pressures are required.

Temperature Range: -80°F to 500°F

Approvals

- USP 24 Class VI
- Meets 3A Standards
- Meets or Exceeds FDA 26 CFR 177.2600
- USDA Dairy Acceptance
- Manufactured Under Good Manufacturing Practice (GMP).

Note: **technosil™** Braided hose is not recommended for implant or in-body uses. Care is recommended in the selection and application of fittings and clamps. Avoid sharp, barbed fittings which could tear into the hose wall and cause possible failure.

Exposure to repeated steam sterilization, or long-term elevated temperatures or pressure, will cause deterioration of silicone hoses. The silicone may become gummy and should be replaced.

Assemblies

- Consult us about 316L stainless steel fittings and assemblies.

technosil™ 650

Item	ID (inches)	OD (inches)	Working Pressure at 70°F	Burst PSI at 70°F	Min. Bend Radius, in.	Weight Per Foot (lb/ft)
TSIL-050-650	0.500	0.86	150	500	3.00	.30
TSIL-075-650	0.750	1.14	125	500	4.00	.39
TSIL-100-650	1.000	1.33	125	500	4.00	.43
TSIL-150-650 V	1.500	1.85	125	500	4.00	.72
TSIL-200-650 V	2.000	2.32	100	350	6.00	1.1
TSIL-250-650 V	2.500	2.83	75	350	8.00	1.1
TSIL-300-650 V	3.000	3.35	75	350	11.00	1.4
TSIL-400-650 V	4.000	4.29	C/F	C/F	C/F	C/F

C/F = Consult Factory

Burst pressure will decrease by 5% for each 200°F increase up to 500°F (maximum temp. for **technosil™**)

Biotechnic Butylflex™

Construction

TUBE: Off-white, smooth, butyl rubber

REINFORCEMENT: High strength synthetic Cord plus dual helix wire, anti-static copper Wires embedded in the hose body

COVER: Violet, smooth (wrapped finish) EPDM rubber, specially compounded for higher resistance to weather, ozone and abrasion

Max. Operating Temp, °F -86°F to 248°F
CIP Temp, °F. 300°F

Values listed are typical and are meant only as a guide to aid in design. Field testing should be performed to find the actual values for your application.

Features

- Smooth Interior and Exterior
- Flexible and Strong
- Resistant to Abrasion
- Anti-static
- High Pressure and Vacuum Tolerant
- CIP (300°F)

Applications

- Load Cells
- Pharmaceutical Processing & Transfer
- Food, Beverage & Dairy Service
- Cosmetic Creams
- Pure Water & WFI Systems
- Filtration Equipment



Biotechnic *Butylflex*™ Transfer Hose

Approvals

- USP 24 Class II
- Meets 3A Standards
- Meets or Exceeds FDA 26 CFR 177.2600
- USDA Dairy Acceptance
- Manufactured Under Good Manufacturing Practice (GMP).

Note: Care is recommended in the selection and application of fittings and clamps. Avoid sharp, barbed fittings which could tear into the hose wall and cause possible failure.

Assemblies

- Consult us about 316L stainless steel fittings and assemblies.

Biotechnic *Butylflex*™

Item	ID (inches)	OD (inches)	Max. Working Pressure at 70°F ¹	Burst PSI at 70°F	Min. Bend Radius, in. ²	Weight Per Per Foot (lb./ft.)
BU-100	1.00	1.45	150	500	2.00	.50
BU-150	1.50	2.00	150	500	2.55	.80
BU-200	2.00	2.56	150	500	3.35	1.07
BU-250	2.50	3.07	150	500	5.11	1.47
BU-300	3.00	3.62	150	500	8.66	1.88
BU-400	4.00	4.72	150	500	12.60	2.42

Biotechnic *Butylflex*™ is rated for full vacuum (in. Hg. 30). Available in bulk or assemblies.

¹ Based on ambient condition on exterior of hose. Medium characteristics and elevated temperatures can effect pressures and burst pressures.

² Measured to the inner surface of the curved portion. Data is based on static applications.

Biotechnic *technosil*[™] Braided

2-Ply Nomex[®] Braid Reinforced, Platinum Cured, Silicone Hose

Physical Properties*

Hardness, Shore A ± 5 – Core	70
Hardness, Shore A ± 5 – Cover	60
Tensile Strength, psi.	1000
Elongation at Break, %	350
Brittle Temperature, °F	-120
Maximum Operating Temp, °F.	500

Values listed are typical and are meant only as a guide to aid in design. Field testing should be performed to find the actual values for your application.

Features

- Ultra-Smooth Bore
- BioPharmaceutical Grade
- Ultra-Flexible
- Will Not Support Bacteria Growth
- Autoclavable/Sterilizable
- Imparts No Taste or Odor
- Platinum Cured
- Non-Reactive to Body Tissues & Fluids

Applications

- Flexible Connections
- Load Cells
- Pharmaceutical Processing & Transfer
- Food, Beverage & Dairy Service
- Laboratory Uses
- Blood & Biological Fluid Handling
- Sterile Filling



technosil[™] Braided platinum cured silicone hose is an ultra-flexible, high purity, autoclavable hose. *technosil*[™] Braided is manufactured with Dow Corning Silastic[®] brand silicone resin. *technosil*[™] Braided hose developed for applications where higher pressures are required.

Temperature Range: -80°F to 500°F

Approvals

- USP 24 Class VI
- Meets 3A Standards
- Meets or Exceeds FDA 26 CFR 177.2600
- USDA Dairy Acceptance
- Manufactured Under Good Manufacturing Practice (GMP).

Note: *technosil*[™] Braided hose is not recommended for implant or in-body uses. Care is recommended in the selection and application of fittings and clamps. Avoid sharp, barbed fittings which could tear into the hose wall and cause possible failure.

Exposure to repeated steam sterilization, or long-term elevated temperatures or pressure, will cause deterioration of silicone hoses. The hose may become gummy and should be replaced.

Assemblies

- Consult us about 316L stainless steel fittings and assemblies.

technosil[™] Braided

Item	ID (inches)	OD (inches)	Working Pressure at 70°F	Burst PSI at 70°F	Weight Per Per Foot (lb/ft)
TSIL-025-B	0.250	0.519	155	625	0.84
TSIL-037-B	0.375	0.653	135	580	0.11
TSIL-050-B	0.500	0.799	125	565	0.15
TSIL-075-B	0.750	1.098	90	350	0.26
TSIL-100-B	1.000	1.358	60	200	0.34

Note: Burst pressure will decrease by 10% for each 200°F increase up to 500°F (maximum temp. for *technosil*[™])

Hose Fittings and Assemblies

Biotechnic offers a complete line of stainless steel fittings including hose assemblies. All Biotechnic fittings are constructed from 316L stainless steel and have a standard surface finish of 15 Ra*. Biotechnic hose stems feature an interlock technology that locks the crimp collar with the mating hose stem. This interlock technology prevents fitting blow-off at elevated temperature and pressure.

Each hose crimp design has been performance tested by an independent laboratory. All fittings are designed to exceed burst-pressure specifications of the hose. As an option, a pressure test certificate can be provided for the hose assemblies. A low impact radial crimp technique ensures smooth hose to fitting transition thereby minimizing bacteria traps and product hold-up. Hose assemblies can be sanitized with short-term CIP/SIP cycles.

Various hose fitting styles available:

- Sanitary Clamp
- Sanitary "Mini Clamp"
- Sanitary "Step-Up" Clamp
- Sanitary Clamp Elbows
- I-Line (male & female)
- Bevel Seat (male & female)
- Cam & Groove (male & female)
- Tube Butt Weld
- Other styles available upon request

Please call us with your hose assembly requirements.

***Note:** Other surface finishes and electro polish available upon request.



Quality 316L hose barb fittings.



Biotechnic *technosil*™ 650 with radial crimp sanitary fittings.



Biotechnic *Butylflex*™ Transfer Hose with radial crimp sanitary fittings.

Biotechnic

SANITARY PROCESS COMPONENTS

AUTHORIZED DISTRIBUTOR

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