



International Filter Products

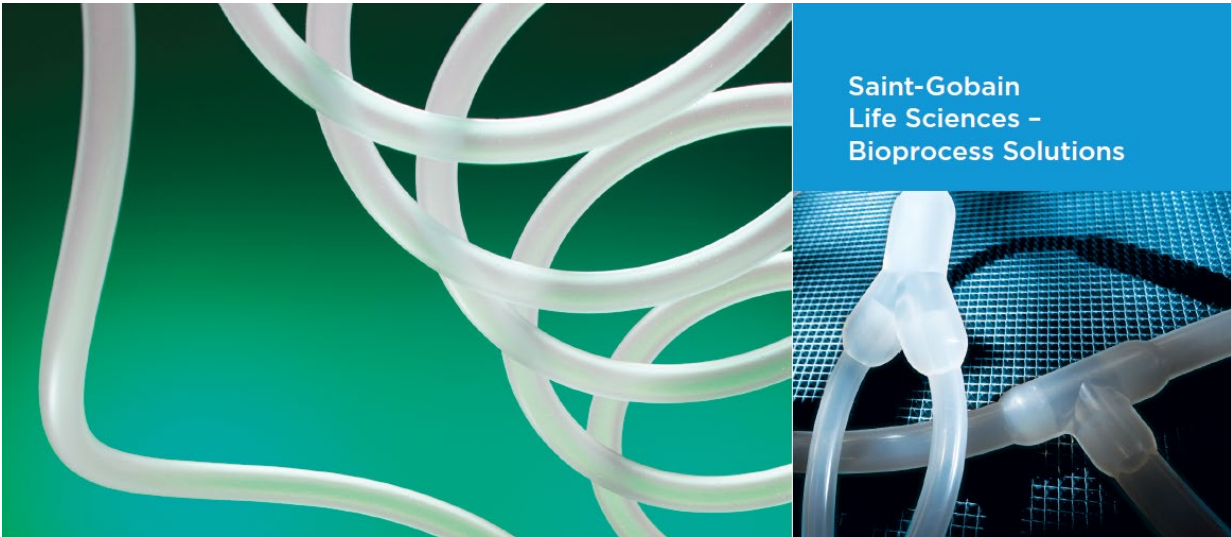
Revolutionary systems for your industry

Sani-Tech® Ultra-C Silicone Tubing

Sani-Tech® Ultra -C represents the next generation in ultra-pure platinum-cured silicone tubing. Features like ultra-low extractables and longer pump life were engineered into Ultra by the experienced materials scientists of Saint-Gobain Life Sciences to meet the stringent requirements of the biopharmaceutical market.

Fluid integrity is vitally important in many biopharmaceutical applications. Sani-Tech® Ultra -C formulations are manufactured and packaged in an ISO 7 certified clean room from the finest grade of silicone materials. Ultra-low TOC's ensure that contamination by extractables is kept to an absolute minimum, and the formulation imparts no taste or odors. Saint-Gobain Life Sciences' silicone tubing is known for its superior pump life – and Sani-Tech Ultra is no exception.

Sani-Tech® Ultra -C tubing can be combined with Sani-Tech® Sani-Link® Ultra platinum-pured manifolds to create custom configurations for demanding biopharmaceutical applications.



Saint-Gobain
Life Sciences –
Bioprocess Solutions

Sani-Tech® Ultra-C

The latest generation of
sanitary silicone tubing



SAINT-GOBAIN



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Application

- Sterile Fill and Transfers
- Pumping
- Ideal For Use in Single-Use Assemblies
- Drug Delivery
- Cell Culture and Harvest
- Alcohols & Oils
- Media/Buffer Processing
- Chromatography
- Filtration and Fermentation

Technical Data Sheet

Features and Benefits:

- ❖ Ultra-low extractable and longer pump life.
- ❖ Sterilizable by gamma irradiation, ETO, and autoclave.
- ❖ Available in two different hardness levels, 50 and 65 Shore
- ❖ Temperature range -62°C to 260°C (-80°F to 500°F).
- ❖ Laser etched for lot traceability.
- ❖ All formulas are Animal-Derived Component Free.
- ❖ All-inclusive Validation Guide and the Regulatory Information Overview (RIO) are available for customers upon request.

Chemical Resistance:

Chemical Type	Sani-Tech Ultra-C Compatibility
Alcohol	Excellent
Acids, Dilute/Weak	Excellent
Bases, Dilute/Weak	Excellent
Salts	Excellent
High-purity Water	Excellent
Oil / Water Emulsion	Excellent

Note: A comprehensive chemical compatibility chart is available upon request.



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When some chemical types are not suitable, safe, or chemically compatible with Sani-Tech, Saint-Gobain offers alternative tubing series. Below, you will find chemicals that are incompatible with Sani-Tech and the suggested alternative Saint-Gobain tubing series:

Chemical Type	Alternative Saint-Gobain Tubing Series
Acids, Concentrated / Strong	C-Flex
Bases, Concentrated / Strong	C-Flex
Low Spallation Peristaltic Pump Tubing	PharmaPure
Biocompatible Peristaltic Pump Tubing	PharMed BPT
Ketones and Organic Solvent	PharmaFluor FEP

Physical Properties:

Property	ASTM Method	Formulations Value
Durometer, Shore A	D2240	50
Tensile Strength, psi	D412	1293
Elongation, %	D412	719
Tensile Modulus, @ 200%, psi (MPa)	D412	200 (1.38)
Specific Gravity	D412	1.14

Sterilization Methods:

Autoclavable

Gamma Irradiation up to 5.0 Mrad (50 Kilogray)

Gas – Ethylene Oxide

Regulatory Compliance (Biocompatibility, Physicochemical & Extractable Testing):

Summary of Results: Sani-Tech® Ultra-C (Validation Summary)		
Method Description	Reference Standard	Result
Genotoxicity Test	ISO 10993-3	Meets Criteria
Hemolysis - Direct Contact	ASTM F756-00	Meets Criteria
Hemolysis - Indirect Contact	ASTM F756-00	Meets Criteria
Irritation and Skin Sensitization: Kligman Maximization Test	ISO 10993-10	Meets Criteria
Systemic Toxicity – Systemic Injection	ISO 10993-11	Meets Criteria
Biological Reactivity Tests, In Vitro – MEM Elution Test	USP <87>	Meets Criteria
Biological Reactivity Tests, In Vitro – Agar Diffusion Test	USP <87>	Meets Criteria
Biological Reactivity Tests, In Vitro – Direct Contact	USP <87>	Meets Criteria
Biologic Reactivity Tests, In Vivo: As Manufactured Samples	USP <88>, Class VI	Meets Criteria
Biologic Reactivity Tests, In Vivo: Post-Gamma Irradiation Samples	USP <88>, Class VI	Meets Criteria
Biologic Reactivity Tests, In Vivo: Post-Autoclave Samples	USP <88>, Class VI	Meets Criteria
Particulate Matter	USP <788>	<1 particle/mL for each category
Bacterial Endotoxin	USP <85>	< 0.005EU/mL
Systemic Toxicity: Rabbit Pyrogen	ISO 10993-11	Meets Criteria
Bacteriostasis & Fungistasis	USP <71>	Meets Criteria
Elastomeric Closures for Injection	USP <381>	Meets Criteria
Physicochemical Tests for Plastics	USP <661>	Meets Criteria
Test for Rubber Closure for Aqueous Infusions	JP 59	Meets Criteria
Silicone Elastomer for Closures and Tubing	EP 3.1.9	Meets Criteria
Total Extractables in Rubber Articles Intended for Repeated Use	21CFR Part 177.2600	Meets Criteria
Extractables Data	Saint-Gobain Protocol	N/A



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Sani-Tech® Ultra -C Tubing Standard Size:

Part Number	ID			OD			Wall			Burst Pressure	
	in.	in. (Fraction)	mm.	in.	in. (Fraction)	mm.	in.	in. (Fraction)	mm.	psi**	BAR**
ULTRA-C-012-0*	0.012	1/80	0.3	0.024	1/50	0.61	0.006	1/160	0.2	50.9	3.51
ULTRA-C-020-0*	0.02	1/50	0.51	0.036	1/25	0.9	0.008	1/125	0.2	44.3	3.05
ULTRA-C-025-0*	0.025	1/40	0.64	0.047	1/2	1.2	0.011	1/100	0.3	47.1	3.25
ULTRA-C-030-0	0.03	1/40	0.76	0.066	1/16	1.7	0.08	2/25	0.5	56.3	3.88
ULTRA-C-030-2*	0.03	1/40	0.76	0.155	4/25	3.9	0.062	1/16	1.6	82.2	5.67
ULTRA-C-040-0*	0.04	1/25	1.00	0.086	2/25	2.2	0.023	1/50	0.6	55.1	3.80
ULTRA-C-058-0*	0.058	3/50	1.50	0.076	3/40	1.9	0.009	1/100	0.2	20.7	1.43

ULTRA-C-062-1	0.063	1/16	1.6	0.125	1/8	3.2	0.032	1/32	0.8	51.4	3.54
ULTRA-C-062-2	0.063	1/16	1.6	0.188	3/16	4.8	0.062	1/16	1.6	70.2	4.84
ULTRA-C-062-3	0.063	1/16	1.6	0.25	1/4	6.4	0.093	3/32	2.4	77.8	5.36
ULTRA-C-062-4	0.063	1/16	1.6	0.313	5/16	8	0.125	1/8	3.2	81.8	5.64
ULTRA-C-062-5	0.063	1/16	1.6	0.438	11/25	11.1	0.187	3/16	4.7	85.4	5.89
ULTRA-C-062-6*	0.063	1/16	1.6	0.563	14/25	14.3	0.25	1/4	6.4	86.9	5.99

ULTRA-C-078-1	0.078	2/25	2.0	0.141	7/50	3.6	0.032	1/32	0.8	44.3	3.05
ULTRA-C-078-2	0.078	2/25	2.0	0.203	1/5	5.2	0.062	1/16	1.6	64.4	4.44
ULTRA-C-078-3	0.078	2/25	2.0	0.266	13/50	6.8	0.093	3/32	2.4	73.8	5.09
ULTRA-C-078-4	0.078	2/25	2.0	0.328	8/25	8.3	0.125	1/8	3.2	78.8	5.43
ULTRA-C-078-5*	0.078	2/25	2.0	0.453	9/20	11.5	0.187	3/16	4.7	83.6	5.76
ULTRA-C-078-6*	0.078	2/25	2.0	0.578	14/25	14.7	0.25	1/4	6.4	85.8	5.92

ULTRA-C-093-1*	0.094	3/32	2.4	0.156	3/20	4	0.032	1/32	0.8	39	2.69
ULTRA-C-093-2*	0.094	3/32	2.4	0.219	11/50	5.6	0.062	1/16	1.6	59.4	4.10
ULTRA-C-093-3*	0.094	3/32	2.4	0.281	7/25	7.1	0.093	3/32	2.4	69.9	4.82
ULTRA-C-093-4*	0.094	3/32	2.4	0.344	17/50	8.7	0.125	1/8	3.2	75.8	5.23
ULTRA-C-093-5*	0.094	3/32	2.4	0.469	23/50	11.9	0.187	3/16	4.7	81.8	5.64
ULTRA-C-093-6*	0.094	3/32	2.4	0.594	3/5	15.1	0.25	1/4	6.4	84.5	5.83



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Part Number	ID			OD			Wall			Burst Pressure	
	in.	in. (Fraction)	mm.	in.	in. (Fraction)	mm.	in.	in. (Fraction)	mm.	psi**	BAR**
ULTRA-C-125-1*	0.125	1/8	3.2	0.188	7/40	4.8	0.032	1/32	0.8	31.5	2.17
ULTRA-C-125-2*	0.125	1/8	3.2	0.25	1/4	6.4	0.062	1/16	1.6	50.9	3.51
ULTRA-C-125-3*	0.125	1/8	3.2	0.313	5/16	8	0.093	3/32	2.4	62.7	4.32
ULTRA-C-125-4*	0.125	1/8	3.2	0.375	3/8	9.5	0.125	1/8	3.2	69.9	4.82
ULTRA-C-125-5*	0.125	1/8	3.2	0.5	1/2	12.7	0.187	3/16	4.7	77.8	5.36
ULTRA-C-125-6*	0.125	1/8	3.2	0.625	5/8	15.9	0.25	1/4	6.4	81.8	5.64

ULTRA-C-156-1	0.156	4/25	4.0	0.219	11/50	5.6	0.032	1/32	0.8	25.9	1.79
ULTRA-C-156-2	0.156	4/25	4.0	0.281	7/25	7.1	0.062	1/16	1.6	44.3	3.05
ULTRA-C-156-3	0.156	4/25	4.0	0.344	17/50	8.7	0.093	3/32	2.4	56.3	3.88
ULTRA-C-156-4	0.156	4/25	4.0	0.406	2/5	10.3	0.125	1/8	3.2	64.4	4.44
ULTRA-C-156-5*	0.156	4/25	4.0	0.531	13/25	13.5	0.187	3/16	4.7	73.8	5.09
ULTRA-C-156-6	0.156	4/25	4.0	0.656	13/20	16.7	0.25	1/4	6.4	78.8	5.43

ULTRA-C-187-1	0.187	3/16	4.7	0.25	1/4	6.4	0.032	1/32	0.8	22.3	1.54
ULTRA-C-187-2	0.187	3/16	4.7	0.313	5/16	8	0.062	1/16	1.6	39.3	2.71
ULTRA-C-187-3	0.187	3/16	4.7	0.375	3/8	9.5	0.093	3/32	2.4	51.1	3.52
ULTRA-C-187-4	0.187	3/16	4.7	0.438	11/25	11.1	0.125	1/8	3.2	59.6	4.11
ULTRA-C-187-5*	0.187	3/16	4.7	0.653	13/20	14.3	0.187	3/16	4.7	69.9	4.82
ULTRA-C-187-6*	0.187	3/16	4.7	0.688	7/10	17.5	0.25	1/4	6.4	75.8	5.23

ULTRA-C-250-1*	0.25	1/4	6.4	0.313	3/10	8	0.032	1/32	0.8	17.5	1.21
ULTRA-C-250-2	0.25	1/4	6.4	0.375	3/8	9.5	0.062	1/16	1.6	29.3	2.02
ULTRA-C-250-3*	0.25	1/4	6.4	0.438	11/25	11.1	0.093	3/32	2.4	42.5	2.93
ULTRA-C-250-4	0.25	1/4	6.35	0.5	1/2	12.7	0.13	1/8	3.18	53	3.65
ULTRA-C-250-5*	0.25	1/4	6.35	0.63	3/5	15.88	0.19	3/16	4.76	62.6	4.32
ULTRA-C-250-6*	0.25	1/4	6.35	0.75	3/4	19.05	0.25	1/4	6.35	69.9	4.82



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	in.	in. (Fraction)	mm.	in.	in. (Fraction)	mm.	in.	in. (Fraction)	mm.	psi**	BAR**
ULTRA-C-312-1	0.31	5/16	7.94	0.38	3/8	9.53	0.03	1/32	0.79	13.6	0.94
ULTRA-C-312-2	0.31	5/16	7.94	0.44	11/25	11.11	0.06	1/16	1.59	26.1	1.80
ULTRA-C-312-3	0.31	5/16	7.94	0.5	1/2	12.7	0.09	3/32	2.38	36	2.48
ULTRA-C-312-4	0.31	5/16	7.94	0.56	11/20	14.29	0.13	1/8	3.18	44.3	3.05
ULTRA-C-312-5	0.31	5/16	7.94	0.69	7/10	17.46	0.19	3/16	4.76	56.3	3.88
ULTRA-C-312-6*	0.31	5/16	7.94	0.81	4/5	20.64	0.25	1/4	6.35	64.4	4.44

ULTRA-C-375-1*	0.38	3/8	9.53	0.44	11/25	11.11	0.03	1/32	0.79	11.4	0.79
ULTRA-C-375-2	0.38	3/8	9.53	0.5	1/2	12.7	0.06	1/16	1.59	24.3	1.68
ULTRA-C-375-3	0.38	3/8	9.53	0.56	11/20	14.29	0.09	3/32	2.38	31.1	2.14
ULTRA-C-375-4	0.38	3/8	9.53	0.63	3/5	15.88	0.13	1/8	3.18	42.1	2.90
ULTRA-C-375-5	0.38	3/8	9.53	0.75	3/4	19.05	0.19	3/16	4.76	50.9	3.51
ULTRA-C-375-6*	0.38	3/8	9.53	0.88	7/8	22.23	0.25	1/4	6.35	59.4	4.10

ULTRA-C-500-1*	0.50	1/2	12.7	0.56	11/20	14.29	0.03	1/32	0.79	8.5	0.59
ULTRA-C-500-2	0.50	1/2	12.7	0.63	3/5	15.88	0.06	1/16	1.59	16.9	1.17
ULTRA-C-500-3	0.50	1/2	12.7	0.69	7/10	17.46	0.09	3/32	2.38	24.5	1.69
ULTRA-C-500-4	0.50	1/2	12.7	0.75	3/4	19.05	0.13	1/8	3.18	31.3	2.16
ULTRA-C-500-5	0.50	1/2	12.7	0.88	7/8	22.23	0.19	3/16	4.76	42.4	2.92
ULTRA-C-500-6*	0.50	1/2	12.7	1.0	1.00	25.4	0.25	1/4	6.35	50.9	3.51

ULTRA-C-625-1*	0.63	5/8	15.88	0.69	7/10	17.46	0.03	1/32	0.79	6.7	0.46
ULTRA-C-625-2	0.63	5/8	15.88	0.75	3/4	19.05	0.06	1/16	1.59	13.6	0.94
ULTRA-C-625-3*	0.63	5/8	15.88	0.81	4/5	20.64	0.09	3/32	2.38	20	1.38
ULTRA-C-625-4	0.63	5/8	15.88	0.88	7/8	22.23	0.13	1/8	3.18	25.9	1.79
ULTRA-C-625-5	0.63	5/8	15.88	1.0	1	25.4	0.19	3/16	4.76	36.1	2.49
ULTRA-C-625-6*	0.63	5/8	15.88	1.13	1 1/10	28.58	0.25	1/4	6.35	44.3	3.05



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	in.	in. (Fraction)	mm.	in.	in. (Fraction)	mm.	in.	in. (Fraction)	mm.	psi**	BAR**
ULTRA-C-750-1*	0.75	3/4	19.05	0.81	4/5	20.64	0.03	1/32	0.79	5.6	0.39
ULTRA-C-750-2*	0.75	3/4	19.05	0.9	7/8	22.23	0.06	1/16	1.59	11.4	0.79
ULTRA-C-750-3*	0.75	3/4	19.05	0.94	9/10	23.81	0.09	3/32	2.38	16.9	1.17
ULTRA-C-750-4	0.75	3/4	19.05	1	1	25.4	0.13	1/8	3.18	22.1	1.5
ULTRA-C-750-5	0.75	3/4	19.05	1.13	1 1/10	28.58	0.19	3/16	4.76	29.6	2.04
ULTRA-C-750-6	0.75	3/4	19.05	1.25	1 1/8	31.75	0.25	1/4	6.35	39.0	2.7

ULTRA-C-875-1*	0.88	8/9	22.23	0.94	9/10	23.81	0.03	1/32	0.79	4.7	0.32
ULTRA-C-875-2	0.88	8/9	22.23	1.0	1	25.4	0.06	1/16	1.59	9.7	0.67
ULTRA-C-875-3*	0.88	8/9	22.23	1.06	1 3/50	26.99	0.09	3/32	2.38	14.6	1.01
ULTRA-C-875-4	0.88	8/9	22.23	1.13	1 1/10	28.58	0.13	1/8	3.18	19.2	1.32
ULTRA-C-875-5	0.88	8/9	22.23	1.25	1 1/4	31.75	0.19	3/16	4.76	27.5	1.90
ULTRA-C-875-6	0.88	8/9	22.23	1.38	1 2/5	34.93	0.25	1/4	6.35	34.8	2.40

ULTRA-C-1000-1*	1.00	1	25.4	1.06	1 3/50	26.99	0.03	1/32	0.79	4.1	0.28
ULTRA-C-1000-2*	1.00	1	25.4	1.13	1 1/10	28.58	0.06	1/16	1.59	8.5	0.59
ULTRA-C-1000-3*	1.00	1	25.4	1.19	1 1/5	30.16	0.09	3/32	2.38	12.8	0.88
ULTRA-C-1000-4	1.00	1	25.4	1.25	1 1/4	31.75	0.13	1/8	3.18	16.9	1.17
ULTRA-C-1000-5	1.00	1	25.4	1.38	1 2/5	34.93	0.19	3/16	4.76	22.6	1.56
ULTRA-C-1000-6	1.00	1	25.4	1.5	1 1/2	38.1	0.25	1/4	6.35	31.3	2.16

*Please consult International Filter Products Inc. for availability.

**Burst pressure measurement is using ASTM D1599.

Sani-Tech® Ultra-C Silicone Tubing – Packaging Option

- Custom Lay lines
- Sterile
- Bulk Spool Packaging
- Custom sizes available



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Sani-Tech® Ultra-C Silicone Tubing

Ordering Guide



[1]	[2]	[3]	[4]
Hardness	Inner Diameter [ID] Code	Wall Thickness Code	Coil
• C: 50 Shore • 65: 65 Shore	• 031: 0.031 inch or 1/32 inch • 062: 0.0625 inch or 1/16 inch • 125: 0.125 inch or 1/8 inch • 156: 0.156 inch or 4/25 inch • 187: 0.1875 inch or 3/16 inch • 250: 0.250 inch or 1/4 inch • 312: 0.3125 inch or 5/16 inch • 375: 0.375 inch or 3/8 inch • 500: 0.500 inch or 1/2 inch • 625: 0.625 inch or 5/8 inch • 750: 0.750 inch or 3/4 inch • 875: 0.8750 inch or 8/9 inch • 1000: 1.00 inch or 1 inch	• 1: 0.031 inch or 1/32 inch • 2: 0.063 inch or 1/16 inch • 3: 0.094 inch or 3/32 inch • 4: 0.125 inch or 1/8 inch • 6: 0.188 inch or 3/16 inch • 8: 0.250 inch or 1/4 inch	• Blank: 25ft Coil • F: 50ft Coil • H: 100ft Coil

Example:

Ultra-C-250-2

Sani-Tech® Ultra-C Platinum Cured Silicone Tubing, ID 0.250 in X OD 0.375 in X Wall thickness 0.062 in, Burst Pressure 29.3 PSI, 25 Ft per Coil

Part Number

Description