

Saint-Gobain
Life Sciences –
Bioprocess Solutions



Bioprocess Bags

For single-use bioprocess systems

Saint-Gobain is a leading global supplier of 50 mL to 3,000 L single-use bags for the biopharmaceutical industry. Our single-use bags are constructed of a multilayer film optimized for bioprocess production applications. The film materials are consistent throughout the product range, with LDPE as the fluid contact material and EVOH as the gas barrier layer. All standard products are certified to be free of animal derived components.

Saint-Gobain BioProcess Systems are manufactured following cGMP that is QSR and ISO 9001 : 2008 compliant. Bags are manufactured and assembled at our Plymouth, MN facility that operates a certified ISO Class 7 cleanroom. Our standard designs are ready to fit a range of bioprocess functions, or we can deliver custom products to meet your exacting needs.

Features / Benefits

- Available as manifold system
- Top or bottom drain
- Recirculation loops and sampling systems
- 2D, 3D, and liner designs for cylindrical tanks
- Sealable, weldable tubing on standard designs
- Needle-free sampling ports
- Small volume bags with integrated hanging capability and handle (2L - 20L)
- Standard or custom designs available

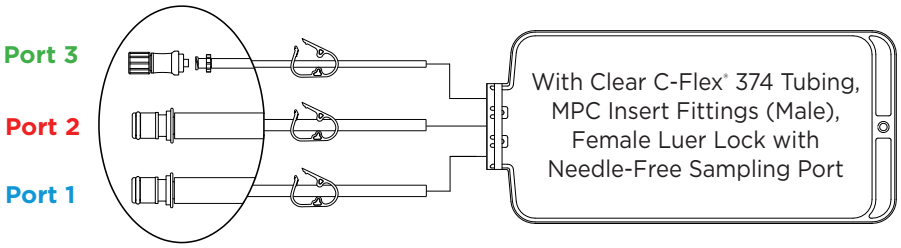
Typical Applications

- Buffer and media storage
- Bioreactor feed and harvest
- Intermediate product hold
- Chromatography feed
- Fraction collection
- Final product hold

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Standard 2D Bags, 3 Ports, 50 mL to 1 L



6″ Tubing Length, All Ports

Part #	Description	Tubing	Dimensions LxW in (cm)	Internal Surface Area in² (cm²)	Port 1	Port 2	Port 3	Qty/ Box
BP0050M	50 mL Bag, STD 3 ports	Clear C-Flex® 374	5.22 x 3.85 (13.26 x 9.78)	26.00 (167.74)	1/4″ x 7/16″ x 6″ (6.35 mm x 11.11 mm x 15.24 cm) MPC Insert, Port Cover, Pinch Clamp	1/4″ x 7/16″ x 6″ (6.35 mm x 11.11 mm x 15.24 cm) MPC Insert, Port Cover, Pinch Clamp	1/8″ x 1/4″ x 6″ (3.175 mm x 6.35 mm x 15.24 cm) LL Female + Needle-Free Sampling Port, Luer Cap, Pinch Clamp	20
BP0150M	150 mL Bag, STD 3 ports		7.72 x 3.85 (19.61 x 9.78)	43.50 (280.64)				20
BP0250M	250 mL Bag, STD 3 ports		9.72 x 3.85 (24.69 x 9.78)	57.00 (367.74)				20
BP0500M	500 mL Bag, STD 3 ports		10.22 x 5.35 (25.96 x 13.59)	86.21 (556.13)				20
BP0001L	1 L Bag, STD 3 ports		13.50x 6.48″ (34.29 x 16.46)	145.42 (935.48)				20

6″ Tubing Length, Ports 1 & 2 / 20″ Tubing Length, Port 3

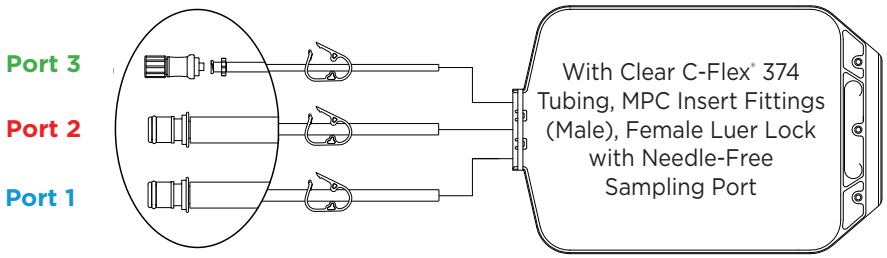
BP0050MC	50 mL Bag, STD 3 ports	Clear C-Flex® 374	5.22 x 3.85 (13.26 x 9.78)	26.00 (167.74)	1/4″ x 7/16″ x 6″ (6.35 mm x 11.11 mm x 15.24 cm) MPC Insert, Port Cover, Pinch Clamp	1/4″ x 7/16″ x 6″ (6.35 mm x 11.11 mm x 15.24 cm) MPC Insert, Port Cover, Pinch Clamp	1/8″ x 1/4″ x 20″ (3.175 mm x 6.35 mm x 50.80 cm) LL Female + Needle-Free Sampling Port, Luer Cap, Pinch Clamp	20
BP0150MC	150 mL Bag, STD 3 ports		7.72 x 3.85 (19.61 x 9.78)	43.50 (280.64)				20
BP0250MC	250 mL Bag, STD 3 ports		9.72 x 3.85 (24.69 x 9.78)	57.00 (367.74)				20
BP0500MC	500 mL Bag, STD 3 ports		10.22 x 5.35 (25.96 x 13.59)	86.21 (556.13)				20
BP0001LC	1 L Bag, STD 3 ports		13.50x 6.48″ (34.29 x 16.46)	145.42 (935.48)				20

20″ Tubing Length, All Ports

BP0050ML	50 mL Bag, STD 3 ports	Clear C-Flex® 374	5.22 x 3.85 (13.26 x 9.78)	26.00 (167.74)	1/4″ x 7/16″ x 20″ (6.35 mm x 11.11 mm x 50.80 cm) MPC Insert, Port Cover, Pinch Clamp	1/4″ x 7/16″ x 20″ (6.35 mm x 11.11 mm x 50.80 cm) MPC Insert, Port Cover, Pinch Clamp	1/8″ x 1/4″ x 20″ (3.175 mm x 6.35 mm x 50.80 cm) LL Female + Needle-Free Sampling Port, Luer Cap, Pinch Clamp	20
BP0150ML	150 mL Bag, STD 3 ports		7.72 x 3.85 (19.61 x 9.78)	43.50 (280.64)				20
BP0250ML	250 mL Bag, STD 3 ports		9.72 x 3.85 (24.69 x 9.78)	57.00 (367.74)				20
BP0500ML	500 mL Bag, STD 3 ports		10.22 x 5.35 (25.96 x 13.59)	86.21 (556.13)				20
BP0001LL	1 L Bag, STD 3 ports		13.50x 6.48″ (34.29 x 16.46)	145.42 (935.48)				20

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Standard 2D Bags, 3 Ports, 2 L to 20 L



6″ Tubing Length, All Ports

Part #	Description	Tubing	Dimensions LxW in (cm)	Internal Surface Area in² (cm²)	Port 1	Port 2	Port 3	Qty/ Box
BP0002L	2 L Bag, STD 3 ports	Clear C-Flex® 374	15.55 x 9.35 (39.37 x 23.75)	226.40 (1458.06)	1/4″ x 7/16″ x 6″ (6.35 mm x 11.11 mm x 15.24 cm) MPC Insert, Port Cover, Pinch Clamp	1/4″ x 7/16″ x 6″ (6.35 mm x 11.11 mm x 15.24 cm) MPC Insert, Port Cover, Pinch Clamp	1/8″ x 1/4″ x 6″ (3.175 mm x 6.35 mm x 15.24 cm) LL Female + Needle-Free Sampling Port, Luer Cap, Pinch Clamp	20
BP0003L	3 L Bag, STD 3 ports		18.05 x 9.35 (45.72 x 23.75)	271.40 (1748.38 cm)				20
BP0005L	5 L Bag, STD 3 ports		18.34 x 12.35 (46.48 x 31.24)	364.52 (2348.38)	3/8″ x 5/8″ x 6″ (9.53 mm x 15.87 mm x 15.24 cm) MPC Insert, Port Cover, Pinch Clamp	3/8″ x 5/8″ x 6″ (9.53 mm x 15.87 mm x 15.24 cm) MPC Insert, Port Cover, Pinch Clamp		20
BP0010L	10 L Bag, STD 3 ports		27.70 x 12.35 (70.36 x 31.24)	587.44 (3787.09)				10
BP0020L	20 L Bag, STD 3 ports		28.12 x 18.35 (71.37 x 46.48)	887.98 (5722.57)				10

6″ Tubing Length Ports 1 & 2 / 20″ Tubing Length, Port 3

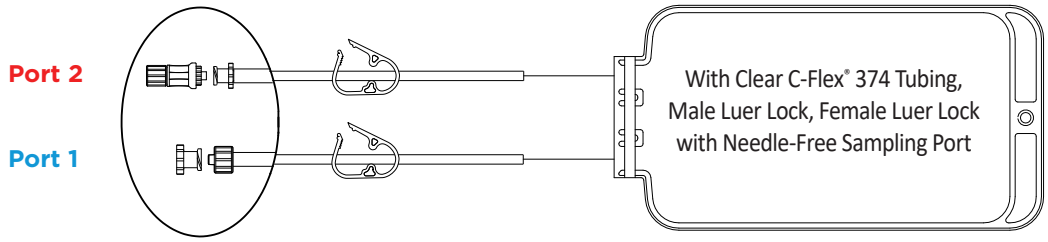
BP0002LC	2 L Bag, STD 3 ports	Clear C-Flex® 374	15.55 x 9.35 (39.37 x 23.75)	226.40 (1458.06)	1/4″ x 7/16″ x 6″ (6.35 mm x 11.11 mm x 15.24 cm) MPC Insert, Port Cover, Pinch Clamp	1/4″ x 7/16″ x 6″ (6.35 mm x 11.11 mm x 15.24 cm) MPC Insert, Port Cover, Pinch Clamp	1/8″ x 1/4″ x 20″ (3.175 mm x 6.35 mm x 50.80 cm) LL Female + Needle-Free Sampling Port, Luer Cap, Pinch Clamp	20
BP0003LC	3 L Bag, STD 3 ports		18.05 x 9.35 (45.72 x 23.75)	271.40 (1748.38 cm)				20
BP0005LC	5 L Bag, STD 3 ports		18.34 x 12.35 (46.48 x 31.24)	364.52 (2348.38)	3/8″ x 5/8″ x 6″ (9.53 mm x 15.87 mm x 15.24 cm) MPC Insert, Port Cover, Pinch Clamp	3/8″ x 5/8″ x 6″ (9.53 mm x 15.87 mm x 15.24 cm) MPC Insert, Port Cover, Pinch Clamp		20
BP0010LC	10 L Bag, STD 3 ports		27.70 x 12.35 (70.36 x 31.24)	587.44 (3787.09)				10
BP0020LC	20 L Bag, STD 3 ports		28.12 x 18.35 (71.37 x 46.48)	887.98 (5722.57)				10

20″ Tubing Length, All Ports

BP0002LL	2 L Bag, STD 3 ports	Clear C-Flex® 374	15.55 x 9.35 (39.37 x 23.75)	226.40 (1458.06)	1/4″ x 7/16″ x 20″ (6.35 mm x 11.11 mm x 50.80 cm) MPC Insert, Port Cover, Pinch Clamp	1/4″ x 7/16″ x 20″ (6.35 mm x 11.11 mm x 50.80 cm) MPC Insert, Port Cover, Pinch Clamp	1/8″ x 1/4″ x 20″ (3.175 mm x 11.11 mm x 50.80 cm) LL Female + Needle-Free Sampling Port, Luer Cap, Pinch Clamp	20
BP0003LL	3 L Bag, STD 3 ports		18.05 x 9.35 (45.72 x 23.75)	271.40 (1748.38 cm)				20
BP0005LL	5 L Bag, STD 3 ports		18.34 x 12.35 (46.48 x 31.24)	364.52 (2348.38)	3/8″ x 5/8″ x 20″ (9.53 mm x 15.87 mm x 50.80 cm) MPC Insert, Port Cover, Pinch Clamp	3/8″ x 5/8″ x 20″ (9.53 mm x 15.87 mm x 50.80 cm) MPC Insert, Port Cover, Pinch Clamp		20
BP0010LL	10 L Bag, STD 3 ports		27.70 x 12.35 (70.36 x 31.24)	587.44 (3787.09)				10
BP0020LL	20 L Bag, STD 3 ports		28.12 x 18.35 (71.37 x 46.48)	887.98 (5722.57)				10

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Standard 2D Bags, 2 Ports, 50 mL to 500 mL



12″ Tubing Length, Both Ports

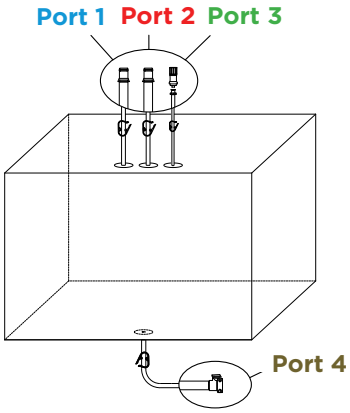
Part #	Description	Tubing	Dimensions LxW in (cm)	Internal Surface Area in² (cm²)	Port 1	Port 2	Qty/Box
BP0050MS	50 mL Bag, STD 2 ports	Clear C-Flex® 374	5.22 x 3.85 (13.26 x 9.78)	26.00 (167.74)	1/8″ x 1/4″ x 12″ (30.48 cm) Male Luer, Luer Cap, Pinch Clamp	1/8″ x 1/4″ x 12″ (30.48 cm) Female Luer, Needle-Free Site, Luer Thread Cover, Pinch Clamp	20
BP0150MS	150 mL Bag, STD 2 ports		7.72 x 3.85 (19.61 x 9.78)	43.50 (280.64)			20
BP0250MS	250 mL Bag, STD 2 ports		9.72 x 3.85 (24.69 x 9.78)	57.00 (367.74)			20
BP0500MS	500 mL Bag, STD 2 ports		10.22 x 5.35 (25.96 x 13.59)	86.21 (556.13)			20

Standard 2D and 3D Bags for Tanks, 200 L to 500 L



3D Construction

With Clear C-Flex® 374 Tubing, MPX Fittings (Male & Female), Female Luer Lock with Needle-Free Sampling Port



3D Bags for Rectangular Tanks 30″ Tubing Length, All Ports

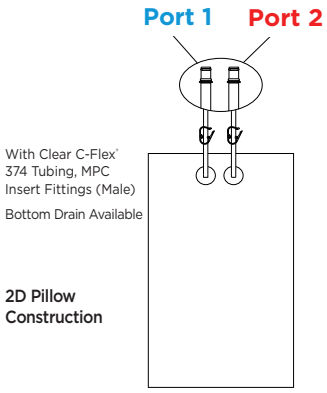
Part #	Description	Dimensions LxWxH in (cm)	Tubing	Port 1 & Port 2	Port 3	Port 4	Qty/ Box
BP0200LB	200 L 3D Bag, STD 4 ports	30 x 22 x 22 (76.2 x 55.88 x 55.88)	Clear C-Flex® 374	1/2″ x 3/4″ x 30″ (12.70 mm x 19.05 mm x 76.20 cm) MPX Insert, MPX Cap, Pinch Clamp	1/8″ x 1/4″ x 30″ (3.175 mm x 6.35 mm x 76.20 cm) LL Female + Needle-Free Sampling Port, Luer Cap, Pinch Clamp	1/2″ x 3/4″ x 30″ (12.70 mm x 19.05 mm x 76.20 cm) MPX Insert, MPX Cap, Pinch Clamp	4
BP0500LB	500 L 3D Bag, STD 4 ports	45.5 x 30 x 27 (11.56 x 76.2 x 68.58)					4

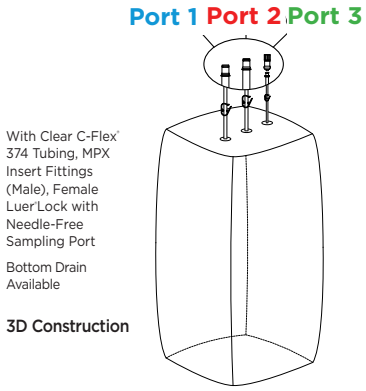
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2D Bags for Cylindrical Tanks 30" Tubing Length, Both Ports

Part #	Description	Dimensions LxW in (cm)	Tubing	Port 1	Port 2	Qty/ Box
BP0050LP	50 L Bag, STD 2 ports	38.5 x 21.75 (97.79 x 55.25)	Clear C-Flex® 374	3/8" x 5/8" x 30" (9.52 mm x 15.87 mm x 76.20 cm) MPC Insert, Port Cover, Pinch Clamp	3/8" x 5/8" x 30" (9.52 mm x 15.87 mm x 76.20 cm) MPC Insert, Port Cover, Pinch Clamp	10
BP0100LP	100 L Bag, STD 2 ports	45.5 x 29.5 (11.56 x 73.66)				10
BP0200LP	200 L Bag, STD 2 ports	58.5 x 35 (148.59 x 7.62)				10







3D Bags for Cylindrical Tanks 30" Tubing Length, All Ports

Part #	Description	Dimensions LxW in (cm)	Tubing	Port 1	Port 2	Port 3	Qty/ Box
BP0050LD	50 L 3D Bag, STD 3 ports	11 x 11 (27.94 x 27.94)	Clear C-Flex® 374	1/2" x 3/4" x 30" (12.7 mm x 19.05 mm x 76.20 cm) MPX Insert, MPX Cap, Pinch Clamp	1/2" x 3/4" x 30" (12.7 mm x 19.05 mm x 76.20 cm) MPX Insert, MPX Cap, Pinch Clamp	1/8" x 1/4" x 30" (3.18 mm x 6.35 mm x 76.20 cm) LL Female + Needle-Free Sampling Port, Luer Cap, Pinch Clamp	10
BP0100LD	100 L 3D Bag, STD 3 ports	15 x 15 (38.1 x 38.1)					10
BP0200LD	200 L 3D Bag, STD 3 ports	17.5 x 17.5 (44.45 x 44.45)					10
BP0300LD	300 L 3D Bag, STD 3 ports	19 x 19 (48.26 x 48.26)					4
BP0500LD	500 L 3D Bag, STD 3 ports	39.25 x 39.25 (99.70 x 99.70)					4

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Standard 3D Liners for Cylindrical Tanks, 20 L to 500 L

Part #	Description	Dimensions LxW in (cm)	Base O.D.	Height	Qty/ Box
LR0020L	20 L Liner, STD 3D	21 x 19.5 (53.34 x 49.53)	11.00" (27.94 cm)	15.13" (38.43 cm)	20
LR0030L	30 L Liner, STD 3D	24 x 23 (60.96 x 58.42)	12.44" (31.60 cm)	18.00" (45.72 cm)	20
LR0040L	40 L Liner, STD 3D	26.5 x 24.5 (67.31 x 62.23)	13.37" (33.96 cm)	20.37" (51.74 cm)	20
LR0050L	50 L Liner, STD 3D	34 x 25 (86.36 x 63.5)	13.63" (34.62 cm)	27.63" (70.18 cm)	20
LR0100L	100 L Liner, STD 3D	36 x 32.5 (91.44 x 82.55)	19.56" (49.68 cm)	29.87" (75.87 cm)	20
LR0200L	200 L Liner, STD 3D	42 x 38.5 (106.68 x 97.79)	22.00" (55.88 cm)	36.13" (91.77 cm)	10
LR0300L	300 L Liner, STD 3D	54 x 41 (137.16 x 104.14)	23.94" (60.81 cm)	48.07" (122.10 cm)	10
LR0400L	400 L Liner, STD 3D	51 x 48 (129.54 x 121.92)	28.37" (72.06 cm)	44.25" (112.40 cm)	10
LR0500L	500 L Liner, STD 3D	68 x 54 (172.72 x 137.16)	31.63" (80.34 cm)	49.31" (125.25 cm)	10



Multilayer Film Structure

Saint-Gobain single-use bags are constructed of multilayer film optimized for bioprocess production applications. Film materials are consistent throughout the product range, and are certified to be free of materials of animal origin. Offering outstanding biocompatibility, chemical compatibility, barrier and strength properties, Saint-Gobain films meet the most demanding bioprocess applications.

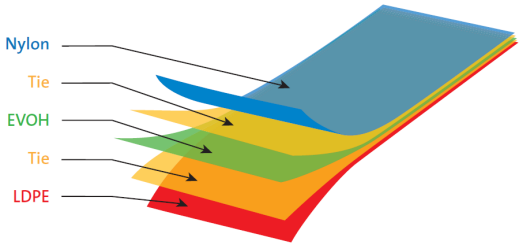
Fluid Contact Layer - Low Density Polyethylene (LDPE)
Provides outstanding biocompatibility with broad chemical compatibility for safe handling of a wide range of biopharmaceutical liquids.

Gas Barrier Layer- Ethyl Vinyl Alcohol (EVOH)
Provides excellent barrier to the transmission of oxygen and carbon dioxide.

Strength Layer - Nylon
Provides outstanding impact and tear resistance, optimizing overall toughness of the bag.

Tie Structure
Multiple materials provide bonding between layers and add to overall performance of the bag.

Film Thickness
Liners: 5 mil (side-wall) / 7 mil (bottom)
50 mL to 1 L bags: 7 mil
2 L to 3000 L bags: 12 mil





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Physical Properties

	ASTM[1]	Units	Typical Value
Thickness 50 mL - 1 L Chamber 2 L - 500 L Chamber	 N/A N/A	 mils mils	 7.0 12.0
Tensile Strength (MD)	D882A	psi	5300
Tear Resistance	D1922	grams	>800
Seam Strength	D882	lbs/in	>25
Dart Impact	D1709	grams	>1600
Operating Temperature	N/A	°C	-80 to +60
O_2 Transmission Rate	F-1927	cc/100 in²/24 hr	0.02
CO_2 Transmission Rate$_2$	N/A	cc/100 in²/24 hr	<0.06

Biological & Particulate Testing

	Test Protocol	Result
Cytotoxicity, In Vitro	ISO-10993-5	Pass
Biological Reactivity, In Vivo (USP Class VI)	USP <88>	Pass
Endotoxin	USP <85>	Pass
Particulate Matter	USP <788> EP <2.9>	Pass
Polyethylene with Additives for Containers	EP <3.1.5>	Pass
Physicochemical Tests for Plastics	USP <661>	Pass
Sterile Purified Water (Oxidizable Substances)	USP <1231>	Pass

Sterilization

	Test Protocol	Result
Microbiological Validation of 25kGy Radiation Sterilization	ANSI/AAMI/ISO 11137	10-6 SAL 2 Year Expiry

Validation and Extractables

Saint-Gobain single-use bags have been qualified using widely accepted test methods.

USP <85> (Endotoxin)	USP <661> (Physicochemical test for Plastics)
USP <87> & ISO 10993-5 (Cytotoxicity, In-Vitro)	USP <788> (Particulate Matter)
USP <88> (Class VI, In-Vivo) ISO 10993-3 (Genotoxicity)	ANSI/AAMI/ISO 11137 Sterility
ISO 10993-5 (Cytotoxicity, In-Vitro)	ASTM (Physical Properties)

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