

Saint-Gobain Single-Use 2D Bioprocess Bags

3 Ports

Cole-Parmer®



These single-use bioprocess bags feature multilayer films in different materials to provide the best biocompatibility, chemical resistance, and gas barrier to meet your bioprocessing applications.

The 2D, or pillow-style, bags are manufactured by welding two multilayer sheets together. These collapsible bags minimize the risk of cross-contamination and reduce cleaning and turnaround time. Place the bags flat in rocker bioreactor systems or hang them using the insert hole at the top of the bag. Each bag features three ports with either 6" or 20" long clear C-Flex® 374 tubing, port covers, and pinch clamps. Two ports have MPC inserts, and one port has a female locking luer with needle-free sampling port.

APPLICATIONS

- Bioreactor feed and harvest, fraction collection, and final product hold
- Ideal for general-purpose, laboratory, and single-use applications

FEATURES/BENEFITS

- Clear C-Flex 374 tubing is sealable and weldable for aseptic connections and sealing disconnection
- Bags are sterilized by gamma irradiation, ports are capped and covered, and systems are double bagged for integrity
- Manufactured and packed in an ISO Class 7 certified cleanroom
- Free of any animal-derived components for greater process purity
- Use bags in temperatures ranging from -80 to 60 °C (-112 to 140 °F)



CERTIFICATION

USP Class VI, ISO 10993-5, QSR, and ISO 9001:2015 compliant

USA	+1.800.323.4340
	+1.847.549.7600
Canada	+1.800.363.5900
China	86.21.5109.9909
India	+1.800.266.1244

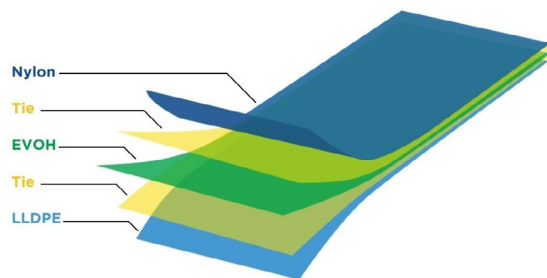
UK	+44 (0) 1480.272279
	+33 (0) 1.87.170142*
	+49 (0) 937.792030*
Italy	+39.02.84349215
All others	+1.847.549.7600

Cole-Parmer®
coleparmer.com

*Inquiries from Germany and France are now handled in our St. Neots office by native-speaking experts.

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 free of materials of animal origin.



FLUID CONTACT LAYER: LINEAR LOW-DENSITY POLYETHYLENE (LLDPE)

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

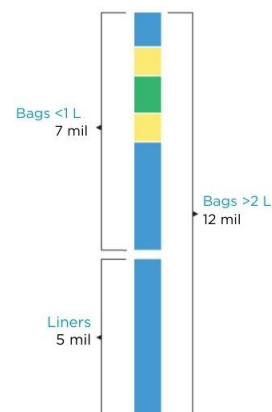
Provides outstanding impact and tear resistance, optimizing overall toughness of the bag.

TIE STRUCTURE

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

FILM THICKNESS

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



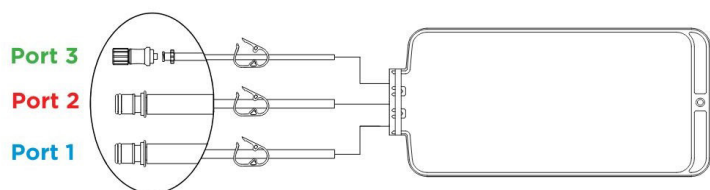
Physical Properties

	ASTM ¹	Units	Typical Value
Thickness: 50 mL to 1 L	—	mils	7
Thickness: 2 L to 20 L	—	mils	12
Tensile Strength (MD)	D882A	psi	5300
Tear Resistance	D1922	grams	>800
Seam Strength	D882	lbs/in	>25
Dart Impact	D1709	grams	>1600
O ₂ Transmission Rate	D3985	cc/m ² /day	<0.005
CO ₂ Transmission Rate	F2476	cc/m ² /day	<1.0
Water Vapor Transmission Rate	F1249	g/m ² /day	2.66 to 2.68

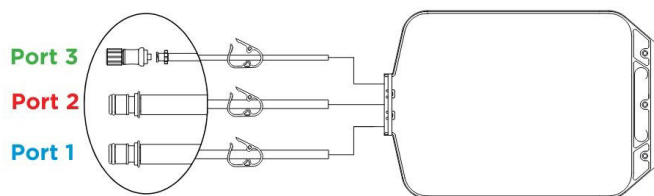
1. ASTM test results reported using 7.0 mil chamber construction.

Bioprocess Bag Diagram

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



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



Specification and Ordering Table for 6" L Tubing

Capacity	Bag Dimensions L x W: in. (cm)	Internal Surface Area: in ² (cm ²)	Port 1		Port 2		Port 3		Item Number	Pack Size
			Tubing Dimensions: in. (mm)	Components	Tubing Dimensions: in. (mm)	Components	Tubing Dimensions: in. (mm)	Components		
50 mL	5.22" x 3.85" (13.26 x 9.78)	26 (167.74)	1/4" ID x 7/16" OD x 6" L (6.4 x 11 x 152)	MPC Insert, Port Cover, Pinch Clamp	1/4" ID x 7/16" OD x 6" L (6.4 x 11 x 152)	MPC Insert, Port Cover, Pinch Clamp	1/8" ID x 1/4" OD x 6" L (3.2 x 6.4 x 152)	Female Luer Lock with Needle-Free Sampling Port, Luer Cap, Pinch Clamp	48523-86	20
150 mL	7.72" x 3.85" (19.61 x 9.78)	43.5 (280.64)							48523-87	20
250 mL	9.72" x 3.85" (24.69 x 9.78)	57 (367.74)							48523-88	20
500 mL	10.22" x 5.35" (25.96 x 13.59)	88.21 (556.13)							48523-89	20
1 L	13.5" x 6.48" (34.29 x 16.46)	145.42 (935.48)							48523-90	20
2 L	15.55" x 9.35" (39.37 x 23.75)	226.4 (1458.06)							48523-91	20
3 L	18.05" x 9.35" (45.72 x 23.75)	271.4 (1748.38)							48523-92	20
5 L	18.34" x 12.35" (46.48 x 31.24)	364.52 (2348.38)	3/8" ID x 5/8" OD x 6" L (9.5 x 15.9 x 152)		3/8" ID x 5/8" OD x 6" L (9.5 x 15.9 x 152)				48523-93	20
10 L	27.7" x 12.35" (70.36 x 31.24)	587.44 (3787.09)							48523-94	10
20 L	28.12" x 18.35" (71.37 x 46.48)	887.98 (5722.57)							48523-95	10

Specification and Ordering Table for 20" L Tubing

Capacity	Bag Dimensions L x W: in. (cm)	Internal Surface Area: in ² (cm ²)	Port 1		Port 2		Port 3		Item Number	Pack Size
			Tubing Dimensions: in. (mm)	Components	Tubing Dimensions: in. (mm)	Components	Tubing Dimensions: in. (mm)	Components		
150 mL	7.72" x 3.85" (19.61 x 9.78)	43.5 (280.64)	1/4" ID x 7/16" OD x 20" L (6.4 x 11 x 508)	MPC Insert, Port Cover, Pinch Clamp	1/4" ID x 7/16" OD x 20" L (6.4 x 11 x 508)	MPC Insert, Port Cover, Pinch Clamp	1/8" ID x 1/4" OD x 20" L (3.2 x 6.4 x 508)	Female Luer Lock with Needle-Free Sampling Port, Luer Cap, Pinch Clamp	48523-96	20
250 mL	9.72" x 3.85" (24.69 x 9.78)	57 (367.74)							48523-97	20
500 mL	10.22" x 5.35" (25.96 x 13.59)	88.21 (556.13)							48523-98	20
1 L	13.5" x 6.48" (34.29 x 16.46)	145.42 (935.48)							48523-99	20
2 L	15.55" x 9.35" (39.37 x 23.75)	226.4 (1458.06)							48524-00	20
3 L	18.05" x 9.35" (45.72 x 23.75)	271.4 (1748.38)							48524-01	20
5 L	18.34" x 12.35" (46.48 x 31.24)	364.52 (2348.38)	3/8" ID x 5/8" OD x 20" L (9.5 x 15.9 x 508)		3/8" ID x 5/8" OD x 20" L (9.5 x 15.9 x 508)				48524-02	20
10 L	27.7" x 12.35" (70.36 x 31.24)	587.44 (3787.09)							48524-03	10
20 L	28.12" x 18.35" (71.37 x 46.48)	887.98 (5722.57)							48524-04	10