

Plastic Storage Bottles Product Selection Guide

CORNING



A Wide Selection of Bottle Shapes, Sizes, and Materials for All Your Laboratory Needs

Corning's disposable bottles are designed for safe, secure storage of tissue culture media and sera, buffers, and other aqueous solutions. The bottles come sterile and ready to use in a wide variety of shapes, materials, sizes, and cap types.

Choose from six styles:

- ▶ Corning® round Polystyrene (PS) low profile bottles with easy grip design for superior handling and stability
- ▶ Costar® traditional Polystyrene (PS) storage bottles with smooth sides
- ▶ Corning square Polycarbonate (PC) bottles are break resistant and autoclavable or microwavable
- ▶ Corning octagonal Polyethylene Terephthalate (PET) storage bottles
- ▶ Corning square Polyethylene Terephthalate (PET) storage bottles
- ▶ Gosselin™ square High Density Polyethylene (HDPE) storage bottles

Physical Properties of Corning Plastic Bottles

	CHEMICAL RESISTANCE		Sterilization	Thermal Durability
	Recommended	Not Recommended		
Polystyrene Bottles	Weak acids, strong alkali, alcohols	Strong acids, ketones, aliphatic, aromatic, and chlorinated hydrocarbons	Do not autoclave	80°C
Polycarbonate Bottles	Weak acids, weak alkali, alcohols	Strong acids, strong alkali, ketones, aliphatic, aromatic, and chlorinated hydrocarbons	Autoclave once	135°C
Polyethylene Terephthalate Bottles	Weak acids	Strong acids, ketones, aliphatic, aromatic, and chlorinated hydrocarbons	Do not autoclave	50°C
High Density Polyethylene Bottles/Caps	Acids, alkali, aldehydes, solvents, alcohol, oils	Aliphatic, aromatic, and chlorinated hydrocarbons, oxidizing acids	Do not autoclave	120°C



Corning easy grip round PS storage bottles



Costar round PS storage bottles



Corning square PC storage bottles

Comparison of Corning® Plastic Storage Bottles

	Corning Easy Grip Round PS Storage Bottles	Costar® Round PS Storage Bottles	Corning Square PC Storage Bottles	Corning Square PET Storage Bottles	Corning Octagonal PET Storage Bottles	Gosselin™ HDPE Storage Bottles
Bottle material	PS	PS	PC	PET	PET	HDPE
Cap color	Orange	Red	Orange	Orange	White	Red, White
Cap material (maximum temperature)	HDPE (121°C)	HDPE (121°C)	PP (140°C)	HDPE (121°C)	HDPE (121°C)	HDPE (121°C)
Autoclavable† (121°C, 15 psi, 20 mins.)	No	No	Yes, once†	No	No	No
Maximum recommended working temperature	70°C	70°C	130°C	50°C	50°C	120°C
Minimum recommended working temperature	-20°C*	-20°C*	-80°C*	-40°C*	-40°C*	-80°C*
Use with Corning vacuum filters	Recommended	Recommended	No	No	No	No
Available sizes	150 mL, 250 mL, 500 mL, and 1L	125 mL, 250 mL, 500 mL, and 1L	125 mL, 250 mL, 500 mL, and 1L	125 mL, 250 mL, 500 mL, and 1L	30 mL, 60 mL, 125 mL, 250 mL, 500 mL, and 1L	150 mL, 250 mL, 500 mL, 1L, 2L, and 2.5L
Dry heat sterilization	No	No	No	No	No	No
Maximum recommended storage temperature	64°C to 80°C	64°C to 80°C	138°C to 143°C	50°C	50°C	120°C
Freezing	-20°C	-20°C	-80°C	-40°C	-40°C	-80°C
CO ₂ gas permeability	High	High	Medium	Medium	Medium	Medium
Shatter resistance	Medium	Medium	High	High	High	High
Microwave with aqueous liquid	No	No	Yes	No	No	No
pH stability	Short	Short	Medium	Good	Good	Good

PS = Polystyrene, PC = Polycarbonate, PET = Polyethylene Terephthalate, HDPE = High Density Polyethylene, PP = Polypropylene.

† Autoclaving will reduce mechanical strength.

* Bottle performance in freezers depends on both the temperature and contents in the bottle. It is strongly recommended that a trial run be performed under actual conditions to test the suitability of the bottles for frozen storage.



Corning square PET storage bottles



Corning octagonal PET storage bottles



Gosselin™ square HDPE storage bottles

Corning® Polystyrene (PS) Storage Bottles



Corning low profile easy grip style storage bottles

- ▶ Disposable polystyrene bottles for storage of media, buffers, and other aqueous solutions
- ▶ Corning low profile style has easy grip sides that facilitate handling
- ▶ Costar® traditional style has smooth sides
- ▶ Plug seal caps (45 mm) provide an airtight seal and help minimize the risk of contamination.
- ▶ Bottles can be used with Corning vacuum filtration systems with 45 mm neck sizes (see Accessories).
- ▶ Sterile
- ▶ Nonpyrogenic

Corning Low Profile Easy Grip Style Storage Bottles

VWR Cat. No.	Corning Cat. No.	Volume	Neck Size (mm)	Qty/Pk	Qty/Cs
29443-026	431175	150 mL	45	2	24
28199-758	430281	250 mL	45	2	24
28199-760	430282	500 mL	45	2	24
28199-762	430518	1L	45	2	24

Costar Traditional Style Storage Bottles

29442-870	8388	125 mL	45	1	24
29442-874	8390	250 mL	45	1	12
29442-878	8393	500 mL	45	1	12
29442-882	8396	1L	45	1	12



Costar traditional style storage bottles

Accessories for PS Storage Bottles

Bottle Top Vacuum Filters

- ▶ Three sizes: 150 mL, 500 mL, and 1,000 mL
- ▶ Low liquid retention funnel design
- ▶ Prefilters must be ordered separately
- ▶ Individually packaged
- ▶ Sterile
- ▶ Nonpyrogenic



Bottle top vacuum filters

150 mL Capacity, 42 mm Square Membrane

VWR Cat. No.	CorningCat. No.	Membrane	Volume	Neck Size (mm)	Pore Size (µm)	Qty/Cs
28199-989	430626	CA	150 mL	45	0.22	48
28199-991	430627	CA	150 mL	45	0.45	48
29442-952	431161	PES	150 mL	45	0.22	48

500 mL Capacity, 63 mm Square Membrane

29442-980	430049	NY	500 mL	45	0.20	12
29552-012	430513	CA	500 mL	45	0.22	12
28199-976	430514	CA	500 mL	45	0.45	12
29186-212	431118	PES	500 mL	45	0.22	12

1,000 mL Capacity, 79 mm Square Membrane

28199-730	430015	CA	1L	45	0.22	12
29442-978	431174	PES	1L	45	0.22	12

PES = polyethersulfone, CA = cellulose acetate, NY = nylon.

Corning® Square Polycarbonate (PC) Storage Bottles



- ▶ Strong, easier to handle, require less space (13% to 20%) on the shelf or in the autoclave
- ▶ Ideal for mixing, sampling, and storage
- ▶ More break-resistant than glass or other plastic bottles
- ▶ Linerless, 45 mm one-piece autoclavable orange GL 45 threaded polypropylene plug seal cap
- ▶ Screened white enamel graduations are easier to see than molded graduations
- ▶ Sterile
- ▶ Bottles can be autoclaved once at 121°C and 15 psi. Repeated autoclaving weakens polycarbonate and is not recommended.
- ▶ Store up to -80°C

VWR Cat. No.	Corning Cat. No.	Volume	Shape	Bottle Material	Neck Diam. (mm)	Qty/Bag	Qty/Cs
89089-722	431430	150 mL	Square	PC	45	1	24
89089-762	431431	250 mL	Square	PC	45	1	24
89089-816	431432	500 mL	Square	PC	45	1	24
89089-756	431433	1L	Square	PC	45	1	24

Accessory Caps and Septa for Square PC Bottles

Corning offers reusable GL 45 septa caps for these storage bottles with a choice of silicone septa or PTFE-faced silicone septa.



VWR Cat No.	Corning Cat No.	Description	Thread Finish	Qty/Cs
11310-688	1395-45HTSC	Cap, open top PBT high temperature	GL 45	10
11310-694	1395-45SS	Septa, silicone	NA	10
11310-700	1395-45TS	Septa, PTFE-faced silicone	NA	10

Note: Most GL 45 threaded caps designed for glass storage bottles use a different sealing design and will not give a secure seal if used on these plastic bottles.

Caution: These square polycarbonate bottles should NOT be used with bottle top filter units or in other applications involving vacuum pressure, as breakage may occur. DO NOT tighten caps immediately after autoclaving as the vacuum resulting from cooling can cause breakage.

Corning Square Polyethylene Terephthalate (PET) Storage Bottles



- ▶ Good for storage of media, buffers and other aqueous solutions
- ▶ Available in four sizes: 125 mL, 250 mL, 500 mL, and 1L
- ▶ Screened white enamel graduations are easier to read than molded graduations
- ▶ Large white marking spot for easier identification
- ▶ Individually packaged bottles have Sterility Assurance Level (SAL) of 10⁻⁶
- ▶ Bottles are validated USP Class VI, noncytotoxic, and nonpyrogenic

VWR Cat. No.	Corning Cat. No.	Volume	Thread Finish	Approx. Diam. x Height (mm)	Grad. Range (mL)	Grad. Interval (mL)	Qty/Pk	Qty/Cs
89238-992	431530	125 mL	GL 45	52.5 x 106.5	50 - 125	25	12	24
89238-994	431531	250 mL	GL 45	59 x 142.5	50 - 250	25	12	24
89238-996	431532	500 mL	GL 45	77 x 176	100 - 500	50	12	24
89238-998	431533	1L	GL 45	92 x 216.5	100 - 1000	50	12	24



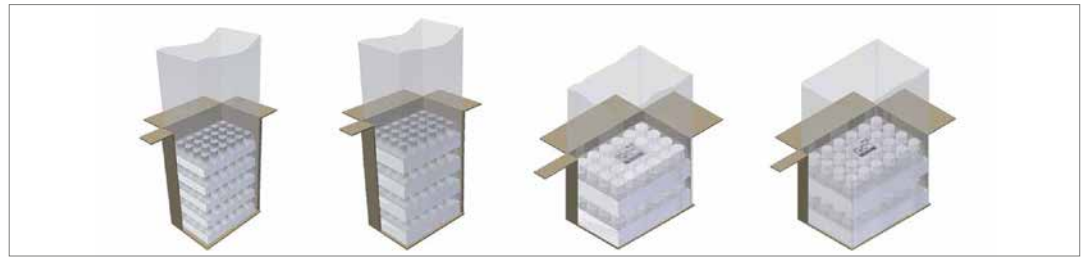
Corning Octagonal Polyethylene Terephthalate (PET) Bottles

- ▶ Available in six sizes: 30 mL, 60 mL, 125 mL, 250 mL, 500 mL, and 1L
- ▶ Packaged in convenient, shrink-wrapped trays within an outer bag to ensure cleanliness
- ▶ Break-resistant bottles are an ergonomic and easy to handle alternative to glass
- ▶ Leak-proof, tamper-evident HDPE screw cap
- ▶ Molded graduations for accurate measurements
- ▶ Bottles are validated USP Class VI, noncytotoxic, nonhemolytic, and nonpyrogenic
- ▶ Bottles have Sterility Assurance Level (SAL) of 10^{-6}

VWR Cat. No.	Corning Cat. No.	Volume	Bottle Material	Screw Cap Color	Screw Cap (mm)	Qty/Tray	Qty/Cs
89235-040	431729	30 mL	PET	Natural	21.0	24	120
89235-042	431730	60 mL	PET	Natural	21.0	24	96
89204-714	431731	125 mL	PET	Natural	34.7	24	48
89204-716	431732	250 mL	PET	Natural	34.7	24	48
89204-718	431733	500 mL	PET	Natural	34.7	12	24
89204-720	431734	1L	PET	Natural	34.7	12	24



Tamper-evident screw cap



Bottles are packaged in convenient, shrink-wrapped trays within an outer bag to ensure cleanliness.

Gosselin™ Square High Density Polyethylene (HDPE) Storage Bottles

- ▶ Large neck opening provides easier access
- ▶ Ideal for storage of liquid, semi-liquid, or solid forms
- ▶ HDPE resin is lightweight and break-resistant
- ▶ Available with screw caps
- ▶ Leak-proof
- ▶ Food contact compliant
- ▶ Sterile



VWR Cat. No.	Corning Cat. No.	Volume	Bottle Material	Screw Cap Color	Height (mm)	Screw Cap (mm)	Sterile	Qty/Cs
10022-312	LC150A-05	150 mL	HDPE	Red	95	37.0	Yes	300
10022-310	LC250-06	250 mL	HDPE	Red	109	37.0	Yes	210
10022-306	LC500-11	500 mL	HDPE	Red	122	58.0	Yes	175
10022-308	LC1000-13	1L	HDPE	Red	185	58.0	Yes	90
10799-436	LC2000-03	2L	HDPE	Red	230	58.0	Yes	50
10799-438	LC2500A-07	2.5L	HDPE	White	262.7	77.0	Yes	35



Square bottle 1L HDPE

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10022-310	6	28199-758	4	29442-874	4	89089-722	5	89235-040	6
10022-312	6	28199-760	4	29442-878	4	89089-756	5	89235-042	6
10799-436	6	28199-762	4	29442-882	4	89089-762	5	89238-992	5
10799-438	6	28199-976	4	29442-952	4	89089-816	5	89238-994	5
11310-688	5	28199-989	4	29442-978	4	89204-714	6	89238-996	5
11310-694	5	28199-991	4	29442-980	4	89204-716	6	89238-998	5

For a complete list of Corning storage bottles, visit www.corning.com/lifesciences.

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