

# Plastic Storage Bottles

Product Selection Guide

CORNING



## Contents

	Page
Introduction .....	1
Physical Properties of Corning® Plastic Bottles .....	1
Comparison of Corning Plastic Storage Bottles .....	2
Corning Polystyrene (PS) Storage Bottles.....	3
Accessories for PS Storage Bottles .....	3
Corning Square Polycarbonate (PC) Storage Bottles.....	4
Accessory Caps and Septa for Square PC Bottles .....	4
Corning Square Polyethylene Terephthalate (PET) Storage Bottles .....	4
Corning Octagonal Polyethylene Terephthalate (PET) Bottles.....	5
Corning Gosselin™ High Density Polyethylene (HDPE) Storage Bottles .....	5
Catalog Number Index.....	6

## 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 these 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
- ▶ Corning Gosselin™ High Density Polyethylene (HDPE) storage bottles
- ▶ Corning Gosselin round 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	Corning 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 <sub>2</sub> 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



Corning Gosselin square HDPE storage bottles



Corning Gosselin round HDPE storage bottles

## Corning® Polystyrene (PS) Storage Bottles



Corning low profile easy grip style storage bottles



Costar traditional 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

Corning Cat. No.	Volume	Neck Size (mm)	Qty/Pk	Qty/Cs
431175	150 mL	45	2	24
430281	250 mL	45	2	24
430282	500 mL	45	2	24
430518	1L	45	2	24

### Costar Traditional Style

8388	125 mL	45	1	24
8390	250 mL	45	1	12
8393	500 mL	45	1	12
8396	1L	45	1	12

## 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

Corning Cat. No.	Membrane	Volume	Neck Size (mm)	Pore Size (µm)	Qty/Cs
430626	CA	150 mL	45	0.22	48
430627	CA	150 mL	45	0.45	48
431161	PES	150 mL	45	0.22	48

#### 500 mL Capacity, 63 mm Square Membrane

430049	NY	500 mL	45	0.20	12
430513	CA	500 mL	45	0.22	12
430514	CA	500 mL	45	0.45	12
431118	PES	500 mL	45	0.22	12

#### 1,000 mL Capacity, 79 mm Square Membrane

430015	CA	1L	45	0.22	12
431174	PES	1L	45	0.22	12

PES = Polyethersulfone, CA = Cellulose Acetate, NY = Nylon.

**Warning:** Use of vacuum-driven filters on glass or plastic bottles may cause personal injury if they implode during use. Only bottles specifically designed for these applications should be used. See Corning document CLS-CC-010 for additional precautions or contact Corning Scientific Support.



## 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

Corning Cat. No.	Volume	Bottle Shape	Material	Neck Diam. (mm)	Qty/Bag	Qty/Cs
431430	150 mL	Square	PC	45	1	24
431431	250 mL	Square	PC	45	1	24
431432	500 mL	Square	PC	45	1	24
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.

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

PBT = Polybutylene Terephthalate

**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<sup>-6</sup>
- ▶ Bottles are validated USP Class VI, noncytotoxic, and nonpyrogenic

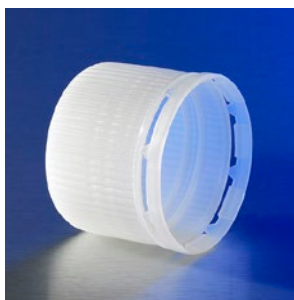
Corning Cat. No.	Volume	Thread Finish	Approx. Diam. x Height (mm)	Grad. Range (mL)	Grad. Interval (mL)	Qty/Pk	Qty/Cs
431530	125 mL	GL 45	52.5 x 106.5	50 - 125	25	12	24
431531	250 mL	GL 45	59 x 142.5	50 - 250	25	12	24
431532	500 mL	GL 45	77 x 176	100 - 500	50	12	24
431533	1L	GL 45	92 x 216.5	100 - 1000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

## Corning® Octagonal Polyethylene Terephthalate (PET) Bottles

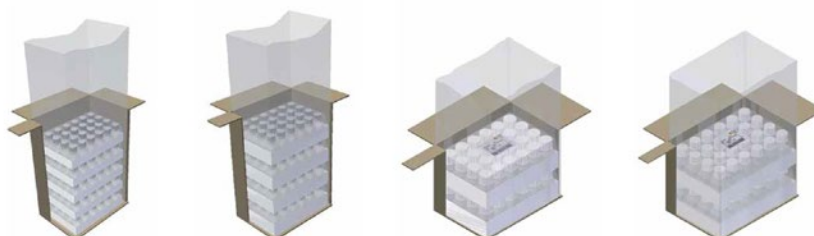


- ▶ Available in six sizes: 30 mL, 60 mL, 125 mL, 250 mL, 500 mL, and 1L
- ▶ Packaged in convenient, shrink-wrapped trays within an outer bag to ensure cleanliness
- ▶ Break-resistant bottles are an ergonomic and easy to handle alternative to glass
- ▶ Leak-proof, tamper-evident HDPE screw cap
- ▶ Molded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

Corning Cat. No.	Volume	Screw Cap Color	Screw Cap (mm)	Qty/Tray	Qty/Cs
431729	30 mL	Natural	21.0	24	120
431730	60 mL	Natural	21.0	24	96
431731	125 mL	Natural	34.7	24	48
431732	250 mL	Natural	34.7	24	48
431733	500 mL	Natural	34.7	12	24
431734	1L	Natural	34.7	12	24



Tamper-evident screw cap



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

## Corning Gosselin™ 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

### Square, Wide Neck

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

### Square, Narrow Neck

Corning Cat. No.	Volume	Screw Cap Color	Height (mm)	Screw Cap (mm)	Sterile	Qty/Cs
FC500-03*	500 mL	Red	146	37.0	Yes	100
FC510-02**	500 mL	Red	148	29.0*	Yes	100
FC520-02	500 mL	Red	160	22.0	Yes	100
FC520-08	500 mL	Red	160	22.0	Yes	100
FC1000-50	1L	Red	182	28.0	Yes	77
FC1000-52	1L	Red	182	28.0	Yes	77

\*Screw cap with wad.

\*\*With hinged plug cap.



## Corning® Gosselin™ High Density Polyethylene (HDPE) Storage Bottles (Continued)



### Round, Wide Neck

Corning Cat. No.	Volume	Screw Cap Color	Height (mm)	Screw Cap (mm)	Sterile	Qty/Cs
LR50A-18	50 mL	Red	77	27.0	Yes	600
LR100-12	100 mL	Red	80	37.0	Yes	335
LR150A-14	150 mL	Red	108	37.0	Yes	250
LR250-09	250 mL	Red	125	37.0	Yes	145
LR500-04	500 mL	Red	136	58.0	Yes	140
LR1000-08	1L	Red	174	58.0	Yes	68

To order the HDPE Corning Gosselin bottles, contact Gosselin Customer Service at [CSBorrexport@corning.com](mailto:CSBorrexport@corning.com) or an authorized distributor.

## Catalog Number Index

Cat. No.	Page No.	Cat. No.	Page No.	Cat. No.	Page No.	Cat. No.	Page No.	Cat. No.	Page No.
8388	3	430513	3	431432	4	431734	5	LC2000-03	5
8390	3	430514	3	431433	4	FC500-03	5	LC2500A-07	5
8393	3	430518	3	431530	4	FC510-02	5	LR50A-18	6
8396	3	430626	3	431531	4	FC520-02	5	LR100-12	6
1395-45HTSC	4	430627	3	431532	4	FC520-08	5	LR150A-14	6
1395-45SS	4	431118	3	431533	4	FC1000-50	5	LR250-09	6
1395-45TS	4	431161	3	431729	5	FC1000-52	5	LR500-04	6
430015	3	431174	3	431730	5	LC150A-05	5	LR1000-08	6
430049	3	431175	3	431731	5	LC250-06	5		
430281	3	431430	4	431732	5	LC500-11	5		
430282	3	431431	4	431733	5	LC1000-13	5		

For a complete list of Corning storage bottles, visit [www.corning.com/lifesciences](http://www.corning.com/lifesciences).

For more specific information on claims, visit the Certificates page at [www.corning.com/lifesciences](http://www.corning.com/lifesciences).

**Warranty/Disclaimer:** Unless otherwise specified, all products are for research use only. Not intended for use in diagnostic or therapeutic procedures. Corning Life Sciences makes no claims regarding the performance of these products for clinical or diagnostic applications.

For additional product or technical information, visit [www.corning.com/lifesciences](http://www.corning.com/lifesciences) or call 800.492.1110. Outside the United States, call +1.978.442.2200 or contact your local Corning sales office.

## CORNING

### Corning Incorporated Life Sciences

836 North St.  
Building 300, Suite 3401  
Tewksbury, MA 01876  
t 800.492.1110  
t 978.442.2200  
f 978.442.2476

[www.corning.com/lifesciences](http://www.corning.com/lifesciences)

### ASIA/PACIFIC

**Australia/New Zealand**  
t 61 427286832

**China**  
t 86 21 3338 4338  
f 86 21 3338 4300

**India**  
t 91 124 4604000  
f 91 124 4604099

### Japan

t 81 3-3586 1996  
f 81 3-3586 1291

### Korea

t 82 2-796-9500  
f 82 2-796-9300

### Singapore

t 65 6572-9740  
f 65 6861-2913

### Taiwan

t 886 2-2716-0338  
f 886 2-2516-7500

### EUROPE

[CEurope@corning.com](mailto:CEurope@corning.com)

### France

t 0800 916 882  
f 0800 918 636

### Germany

t 0800 101 1153  
f 0800 101 2427

### The Netherlands

t 020 655 79 28  
f 020 659 76 73

### United Kingdom

t 0800 376 8660  
f 0800 279 1117

### All Other European Countries

t +31 (0) 206 59 60 51  
f +31 (0) 206 59 76 73

### LATIN AMERICA [grupoLA@corning.com](mailto:grupoLA@corning.com)

**Brasil**  
t 55 (11) 3089-7400

**Mexico**  
t (52-81) 8158-8400