



# Product selection guide for every step of your cell culture workflow

From culture to discovery

**ThermoFisher**  
SCIENTIFIC

## Culture with confidence

Thermo Scientific™ Nunc™ and Nalgene™ cell culture products have been used by researchers for more than 60 years in labs around the world.

We take pride in supplying products with consistent high quality to help ensure you get the most reproducible and reliable results in your research. Our products are manufactured using only high-quality raw materials that comply with USP Class VI testing. Most of our cell culture products are tested with trusted Gibco™ media to confirm optimal cell growth across multiple cell lines. This selection guide will help you find the most relevant cell culture surface and format for every step of your workflow—from culture to discovery.

Culture	Modify	Detect	Analyze
Surfaces			
Flasks			
Dishes and multidishes			
Microplates			
Chamber slides and coverglasses			
Cell culture inserts			
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Accessories			
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# Surfaces

## Choosing the best growth surface for your cells

To help ensure optimal results for different cell types, we offer a range of Thermo Scientific™ cell culture surfaces. Let us help guide your selection to choose the culture surface for your applications.

### Nunclon™ Delta surface for adherent cells

A standard tissue culture (TC) surface modification that makes the polystyrene surface more hydrophilic, thus facilitating maximum adhesion for a broad range of cell types.

### Nunc™ poly-D-lysine or collagen I-coated surface, and Nunc™ Lab-Tek™ II CC<sup>2</sup>™ modified glass surface for primary cells and sensitive cells

The extracellular matrix (ECM)-coated surfaces imitate the growth environment of cells inside a living body—ideal for cells that don't grow well on the regular TC surface. Collagen I is of animal origin, whereas Nunc poly-D-lysine is fully synthetic. The CC<sup>2</sup> glass surface mimics poly-D-lysine surface properties, but without the coating material.

### Nunc™ UpCell™ surface for adherent cultures that require enzyme-free cell detachment

Enables harvesting of cells in single-cell suspensions or as contiguous cell sheets by temperature reduction to preserve cell membranes and membrane molecules, and helps create 3D tissue models without artificial scaffold material.

### Nunc™ non-treated surface for suspension culture

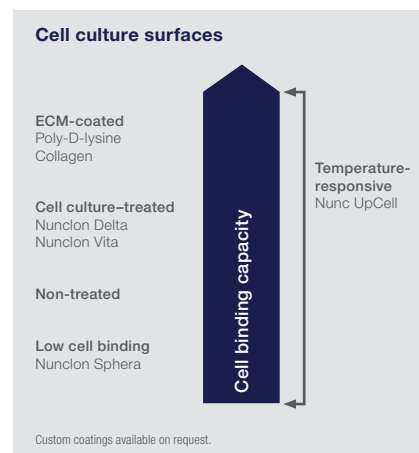
High-quality, optically clear virgin polystyrene with a hydrophobic surface is ideal for suspension cell culture, and also useful for a variety of biochemical assays.

### Nunclon™ Sphera™ surface for spheroid-organoid culture

Using this surface, cells grow and aggregate with virtually no attachment to the culture vessel; suitable for spheroid culture, organoid culture, and 3D culture.

### Custom coating

If you have any specific need in your research, we can coat cell culture surfaces according to a custom protocol. Contact our technical sales specialists for more information.



# Flasks

## Nunc cell culture flasks—designed for the way you work

Thermo Scientific™ cell culture flasks are designed for culture consistency, cell health, and reproducibility. Select the surface and ancillary options you're looking for in a tissue culture flask from our comprehensive portfolio. Choose from a variety of surfaces and sizes with culture areas ranging from 25 cm<sup>2</sup> to 500 cm<sup>2</sup> to suit your specific applications and cell types.

### Nunc™ EasYFlask™ flasks

Designed for convenience

- Angled, extra-wide neck provides easier access to growth surface with cell scrapers or pipettes
- Ergonomic design with 1/3-turn cap enables one-handed operation and avoids wrist strain
- Molded and printed graduations help enable easy and quick measurement of growth media

### Nunc™ standard flasks

Designed with a straight neck and barcoding option for automation cell culture

### Nunc™ T300 flasks

Designed for durability and ease of use

- One-piece design with straight neck and grip notches
- Largest single-layer, cell culture-treated flask on the market
- Prominent stacking feet on upper surface enable reliable stacking of multiple flasks in incubators and culture hoods

### Nunc™ TripleFlask™ flasks

Designed for cell culture expansion without expanding footprint of the flask

- 3-layer flask providing 3 times the growth surface of a T175 flask for the same footprint, saving space in the incubator
- Barcoding option for automation cell culture



**Table 1. Nunc flasks.**

Table 1. Nunc flasks.						Cat. No. by surface				
Flask type	Surface area (cm <sup>2</sup> )	Working volume (mL)	Neck style	Cap type	Barcoding	Nunclon Delta for adherent cells	Non-treated for suspension cells	Nunclon Sphera for spheroid-organoid culture	Poly-D-lysine for primary and sensitive cells	Collagen I for primary and sensitive cells
EasYFlask	25	7	Angled	Filtered		156367	169900	174951	132703*	132706*
				Solid		156340				
	75	25		Filtered		156499	156800	174952	132704*	132707*
				Solid		156472				
	175	55		Filtered		159910	159926		132705*	132708*
				Solid		159920				
	225	70		Filtered		159934				
				Solid		159933				
Standard flask	25	7	Angled	Filtered		136196				
				Solid		163371				
	80	30	Straight	Filtered		178905				
				Solid		153732				
	175	68		Filtered		178883				
				Filtered	•	178983				
		Solid		156502						
T300 flask	300	150	Straight	Filtered		132098				
				Solid		132097				
TripleFlask	500	200	Straight	Filtered		132913	132903			
				Filtered	•	132920				
				Solid		132867				

\* Aseptically sterile.

Find out more about Nunc cell culture flasks at [thermofisher.com/cellcultureflasks](https://thermofisher.com/cellcultureflasks)

## Dishes and multidishes

### Nunc cell culture dishes and multidishes—a better way to handle your cells

Thermo Scientific™ Nunc™ cell culture dishes are available in a wide selection of formats, materials, and surface modifications. Each is designed and produced under the highest quality standards to promote healthy cells and reproducible results. Each selection offers excellent optical quality for manual and automated imaging and is compatible with automated equipment and instruments.

#### Nunc™ EasYDish™ dishes

- Designed to improve handling, stacking, and transporting of cell cultures in the lab
- Beveled grip makes it easier to grasp and manage dish with gloved hand
- Raised outer edge on the lid helps keep stacked dishes stable



Nunc EasYDish dishes

#### Nunc™ standard dishes

- Available in round, rectangular, and square formats
- Available with or without air vent



Nunc standard dishes

#### Nunc™ glass bottom dishes

- Combines the convenience of a standard 35 mm dish with the imaging benefits of coverglass to provide optimum optical characteristics required for high-magnification microscopy and confocal imaging
- Cell culture–treated glass to enhance cell attachment and growth



Nunc glass bottom dishes

#### Nunc™ multidishes

- Designed to prevent evaporation and cross-contamination with one-way lid orientation and rings in lid over each well
- Available with round or rectangular wells



Nunc multidishes

**Table 2. Nunc dishes and multidishes.**

Dish type	Format (mm)	Surface area (cm <sup>2</sup> )	Air vent	Cat. No. by surface				
				Nunclon Delta for adherent cells	Non-treated for suspension cells	Nunclon Sphera for spheroid-organoid culture	UpCell for adherent culture plus trypsin-free cell harvesting	Cell culture–treated glass for high-quality imaging
Round EasYDish	35 x 10	8.8	•	150460				
	60 x 15	21.5	•	150462				
	100 x 15	56.7	•	150464				
	100 x 20	56.7	•	150466				
	150 x 20	145	•	150468				
Round standard dish	35 x 10	8.8		150318				
			•	153066	171099	174943	174904	150680, 150682
				150326				
	60 x 15	21.5	•	150288	150340	174944	174903	
	100 x 15	56.7	•	150350		174945	174902	
	100 x 20		•	172931				
	150 x 20	145	•	168381				
Rectangular dish	128 x 86	84		165218	242811			
Square dish	245 x 245	500		166508	240835			

Multidish type	Well shape	Surface area/well (cm <sup>2</sup> )	Large packaging	Cat. No. by surface					
				Nunclon Delta for adherent cells	Non-treated for suspension cells	Nunclon Sphera for spheroid-organoid culture	UpCell for adherent culture plus trypsin-free cell harvesting	Poly-D-lysine-coated for sensitive cells	Collagen I-coated for sensitive cells
4-well	Round	1.9		176740	179820				
	Rectangle	21.8		167063	267061				
6-well	Round	9.6		140675	150239	174932	174901	152035**	152034**
			•	140685					
8-well	Rectangle	10.5		167064					
12-well	Round	3.5		150628	150200	174931	174900		
24-well	Round	1.9		142475	144530	174930	174899	152025**	
			•	142485					
48-well	Round	1.1		150687	150787		174898		
			•	152640					

\*\* Aseptically sterile.

Find out more about Nunc cell culture dishes at [thermofisher.com/cellculturedishes](https://thermofisher.com/cellculturedishes)

Find out more about Nunc cell culture multidishes at [thermofisher.com/cellcultureplates](https://thermofisher.com/cellcultureplates)

## Microplates

### Nunc microplates—designed for your specific application needs

Whether you're culturing individual cell lines or scaling up for high-throughput screening, or anything in between, there is a Thermo Scientific™ Nunc™ microplate for your needs. Advances in manufacturing for surface technology, well geometry, and optical flatness mean we have a plate tailored for your specific application.

#### Nunc™ Edge 2.0 plates

- Designed to eliminate evaporation and improve cell growth consistency across the 96 wells with a built-in reservoir surrounding the wells that can be filled with medium or gel



Nunc Edge 2.0 plate

#### Nunc™ standard plates

- Available in clear, black, and white to suit different detection technologies used by plate readers
- Available with 96, 384, and 1,536 wells for high-throughput screening (HTS) applications



Nunc standard plates

#### Nunc™ optical bottom plates

- With superior imaging quality and minimal background noise and crosstalk between wells, these plates are optimized for fluorescence and luminescence imaging applications



Nunc optical bottom plates

**Table 3. Nunc microplates.**

Microplate type	Bottom	Well shape	Color	Lid	Large packaging	Cat. No. by surface						
						Nuncion Delta for adherent cells	Non-treated for suspension cells	Nuncion Sphera for spheroid-organoid culture	UpCell for adherent culture plus trypsin-free cell harvesting	Poly-D-lysine for primary and sensitive cells	Collagen I for primary and sensitive cells	CC <sup>+</sup> glass for primary and sensitive cells
96-well	Solid	Flat (F)	Clear	•		168055						
					•	167008		174927	174897	152039 <sup>†</sup>	152038 <sup>†</sup>	
				•	•	156545						
				•	•	161093	260860					
	Solid with reservoirs (Edge plate)	Flat (F)	Clear	•		167425	267427					
				•	•	167542	267544					
				•		136101	236105					
				•	•	136102	236107					
	Solid	Flat (F)	Black	•		137101	237105					
				•	•	137103	237107					
		Round (U)	Clear	•		143761	262162					
				•	•	163320		174925				
				•		168136	268200	174929				
							249662					
		Conical (V)	Clear		•		249940					
				•			277143					
				•	•		249952					
	Optical coverglass	Flat (F)	White	•		164590						
			Black	•		164588	265300 <sup>†</sup>					160376
	Optical polymer film	Flat (F)	White	•		165306				152028 <sup>†</sup>	152040 <sup>†</sup>	
			Black	•			265302 <sup>†</sup>					
						165305				152037 <sup>†</sup>	152036 <sup>†</sup>	
							265301 <sup>†</sup>					
384-well	Solid	Flat (F)	Clear	•		164688	265202					
							265203					
			White	•		164610						
			Black	•		165195	262360 <sup>†</sup>					
	Solid shallow-well	Flat (F)	Clear				262260 <sup>†</sup>					
			White				264704 <sup>†</sup>					
			Black				264706 <sup>†</sup>					
							264705 <sup>†</sup>					
	Optical coverglass	Flat (F)	Black	•		164586						
			White	•		142762						
	Optical polymer film	Flat (F)	White	•		142761				152029 <sup>†</sup>	152041 <sup>†</sup>	
			Black	•								
1,536-well	Solid	Flat (F)	Clear				242764 <sup>†</sup>					
			White				253614 <sup>†</sup>					
			Black				253607 <sup>†</sup>					

<sup>†</sup> Aseptically sterile.

<sup>‡</sup> Non-sterile.

For barcoding the plate, go to [thermofisher.com/barcodeconfigurator](https://thermofisher.com/barcodeconfigurator)

Find out more about Nunc cell culture plates at [thermofisher.com/cellcultureplates](https://thermofisher.com/cellcultureplates)

## Chamber slides and coverglasses

Nunc chamber slides and chambered coverglasses—superior cell imaging performance simplified

Efficiency is everything. The Thermo Scientific™ Nunc™ Lab-Tek™ and Lab-Tek™ II chamber slide system and chambered coverglasses simplify your cell imaging workflow by allowing you to culture, modify, stain, and analyze—all in a single device.

### Nunc chamber slides

- Chamber slides are designed for growth, fixation, staining, and microscopic examination of cultured cells on a single surface with removable medium chambers

### Nunc chambered coverglasses

- Chambered coverglasses with lids are intended for high-magnification live imaging of cells using an inverted microscope

### Nunc™ Lab-Tek™ flasks on slides

- Ideal for cell karyotyping using single-cell autoradiography or single-cell immunofluorescence



Nunc chamber slides



Nunc chambered coverglasses



Nunc Lab-Tek flasks on slides



Table 4. Nunc chamber slides and chambered coverglasses.

Chamber slide type	Number of wells	Surface area/well (cm <sup>2</sup> )	Chamber—removable	Sealant	Cat. No. by slide material		
					Glass	Permanox™ slides	CC <sup>+</sup> glass
Lab-Tek	1	9.4	Yes, no tool needed	Silicone, medical grade	177372	177410	
	2	4.2			177380	177429	
	4	1.8			177399	177437	
	8	0.8			177402	177445	
	16	0.4			178599		
Lab-Tek II	1	8.6	Yes, tool provided	Biocompatible acrylic adhesive	154453		154739
	2	4.0			154461		154852
	4	1.7			154526		154917
	8	0.7			154534		154941

Chambered coverglass type	Number of wells	Surface area/well (cm <sup>2</sup> )	Chamber—removable	Borosilicate coverglass thickness (mm)	Cat. No. by coverglass thickness
Lab-Tek	1	9.4	No	0.13–0.17	155361
	2	4.2			155380
	4	1.8			155383
	8	0.8			155411
Lab-Tek II	1	8.6	No	0.16–0.19	155360
	2	4.0			155379
	4	1.7			155382
	8	0.7			155409

Flask on slide type	Number of wells	Surface area/well (cm <sup>2</sup> )	Suggested working volume (mL)	Cat. No. by slide material	
				Glass	TC-treated polystyrene
SlideFlask	1	9.0	2.5–5		170920
Flaskette	1	10.0	2.5–5	177453	

Find out more about Nunc chamber slides and chambered coverglasses at [thermofisher.com/chamberslides](https://thermofisher.com/chamberslides)

## Cell culture inserts

### Nunc cell culture inserts and carrier plate systems—versatility and convenience for your permeable cell culture applications

When your cell-based research calls for more than the standard culture vessel, the porous membrane-based Thermo Scientific™ Nunc™ cell culture inserts enable the versatility you need by allowing the attached cells to be exposed to different conditions on the apical and basal sides, as well as allowing molecules and cells to migrate, diffuse, or be actively transported across the growth surface. The unique Thermo Scientific™ Nunc™ carrier plate systems simplify procedures that require an air–liquid interface and change of medium by allowing the inserts to be hung in three precise positions in the wells.

#### Nunc cell culture inserts

- Polycarbonate (PC) inserts have high pore density to allow more exchange of growth medium through the membrane for transport studies and co-culture
- PC porous membrane material is optimized for cell growth and is well suited for barrier assays, and tumor migration and invasion studies

#### Nunc carrier plate systems

- Ability to adjust the hanging height of inserts in the multiwell plate—optimized for culture at the air–liquid interface with precise position control
- Extends cell feeding interval of air–liquid interface culture by putting more medium in each well with the insert at the highest hanging position
- Ability to lift all the inserts from the multiwell plate at once, saving time when changing medium



Nunc cell culture inserts



Nunc carrier plate system



Cross-section view of a Nunc carrier plate system

Table 5. Choose insert pore size by application.

Cell culture applications		Insert pore size		
		0.4 µm	3 µm	8 µm
Transport studies	Molecules including hormones and growth factors	•	•	
	Drug transport across epithelial (e.g., Caco-2) and endothelial barriers			
	Drug transport across brain microvascular endothelial cells			
Co-culture studies	Cell–cell interactions	•	•	
	Cell–substrate interactions			
Tissue engineering	Angiogenesis	•	•	
	Dermal or epidermal and epithelial tissue models			
Chemotaxis studies	Migration of cells including eosinophils and macrophages		•	•
Invasion studies	Tumor invasion and metastasis models		•	•
	Invasion inhibitors			
	Extracellular matrix effects			

Table 6. Nunc cell culture inserts and carrier plate systems.

Membrane	Plate	Inserts/plate	Surface area/insert (cm²)	Carrier plate	Cat. No. by membrane pore size		
					0.4 µm	3 µm	8 µm
Polycarbonate	24-well	12	0.5		140620	140627	140629
		24		•	141002	141004	141006
	12-well	12	1.1		140652	140654	140656
				•	141078	141080	141082
	6-well	6	3.1		140640	140642	140644
			4.1		140660	140663	140668

Find out more about Nunc cell culture inserts and carrier plate systems at [thermofisher.com/cellcultureinserts](https://thermofisher.com/cellcultureinserts)

# Shaker flasks

## Nalgene shaker flasks—your choice for optimal scale-up

Save preparation time and avoid contamination risk with sterile Thermo Scientific™ Nalgene™ single-use PETG Erlenmeyer flasks—ideal for suspension cell culture, medium preparation, mixing, and storage.

Key features

- Made with crystal clear, break-resistant, bisphenol A (BPA)-free PETG
- Sterile with 10<sup>-6</sup> sterility assurance level (SAL)
- Made for single use to reduce cross-contamination and eliminate need for cleaning
- Collapse when autoclaved—reducing biohazardous waste volume
- Graduated for quick volume assessment
- Validation binder available upon request to help jump-start your validation process
- Options of solid or filtered cap for adequate gas exchange
- Plain or baffled bottom to suit needs for reducing shear stress or improving aeration



Table 7. Nalgene single-use PETG Erlenmeyer flasks.

Bottom style	Volume (mL)	Cap type	Cat. No.
Plain	125	Filtered	4115-0125
		Solid	4112-0125
	250	Filtered	4115-0250
		Solid	4112-0250
	500	Filtered	4115-0500
		Solid	4112-0500
	1,000	Filtered	4115-1000
		Solid	4112-1000
	2,000	Filtered	4115-2000
		Solid	4112-2000
Baffled	250	Filtered	4116-0250
		Solid	4113-0250
	500	Filtered	4116-0500
		Solid	4113-0500
	1,000	Filtered	4116-1000
		Solid	4113-1000
	2,000	Filtered	4116-2000
		Solid	4113-2000
	2,800	Filtered	4116-2800
		Solid	4113-2800

# Accessories

## Nunc cell culture accessories—aid your research with simplicity

Complementing the essential cell culture devices, Thermo Scientific™ cell culture accessories bring convenience and compatibility to every step of your cell culture workflow.

### Nunc™ conical tubes—a clear advantage in sample processing and tracking

- Nunc™ EZFlip™ conical tubes with proprietary hinged-cap design can be opened and closed with one hand
- Nunc standard conical tubes are available with environment-friendly and recyclable plastic rack

### Nunc™ serological pipettes feature:

- Easy, color-coded packaging to simplify size selection
- PET filter plug to help prevent contamination
- Free of RNases, DNases, and human DNA
- Wide range of packaging options to suit your recycling needs and reduce impact on the environment

### Nunc™ cell scrapers—ultimate flexibility

- Individually wrapped, with flexible blade for optimal removal of cells
- Provide an alternative solution to cell dissociation enzymes

Table 8. Nunc conical tubes.

Tube type	Volume (mL)	Max RCF <sup>§</sup> (x g)	Cat. No. by packaging	
			Loose	Racked
Standard conical	15	10,500	339650	339651
	50	17,000	339652	339653
EZFlip conical	15	8,500	362694	362695
	50	9,500	362696	362697

§ Relative centrifugal force (RCF) is determined by centrifuge model, rotor–adapter combination, and centrifugation conditions (e.g., temperature, time, acceleration, deceleration, sample volume, etc.).

Table 9. Nunc serological pipettes.

Volume (mL)	Color code	Cat. No. by packaging		
		Individual (paper and plastic)	Individual (plastic)	Bulk
1		170353N	170364N	170371N
2		170354N	170365N	170372N
5		170355N	170366N	170373N
10		170356N	170367N	170374N
25		170357N	170368N	170375N
50		170358N	170369N	170376N

Table 10. Nunc cell scrapers.

Length (cm)	Cat. No. by packaging	
	50/case	250/case
23	179693PK	179693
32	179707PK	179707

Table 11. Nunc key products.

Category	Description	Type or packaging	Cat. No.
Nunc EasYDish Cell Culture Dishes	Nunc EasYDish Dish, Nunclon Delta certified	35 mm diameter x 13 mm high, 8.8 cm <sup>2</sup> culture area	150460
		60 mm diameter x 16 mm high, 21.5 cm <sup>2</sup> culture area	150462
		100 mm diameter x 17 mm high, 56.7 cm <sup>2</sup> culture area	150464
		100 mm diameter x 21 mm high, 56.7 cm <sup>2</sup> culture area	150466
		150 mm diameter x 21 mm high, 145 cm <sup>2</sup> culture area	150468
Nunc EasYFlasks Cell Culture Flasks	Nunc EasYFlask, Nunclon Delta certified	25 cm <sup>2</sup> culture area	156367
		75 cm <sup>2</sup> culture area	156499
		175 cm <sup>2</sup> culture area	159910
		225 cm <sup>2</sup> culture area	159934
Nunc Cell Culture Plates	Nunc cell culture multidishes, Nunclon Delta certified	4-well	176740
		6-well	140675
		12-well	150628
		24-well	142475
		48-well	150687
	Nunc Edge 2.0 96-well cell culture microplate	Nunclon Delta certified	167425
		Non-treated	267427
	Nunc F96-well microplate, Nunclon Delta certified	Black	137101
		White	136101
Nunc Conical Tubes	Nunc 15 mL Conical Centrifuge Tubes	Bulk pack	339650
		Racked	339651
	Nunc 50 mL Conical Centrifuge Tubes	Bulk pack	339652
		Racked	339653
Nunc Serological Pipettes	Nunc Serological Pipettes, individually wrapped, paper/plastic peel	1 mL	170353N
		2 mL	170354N
		5 mL	170355N
		10 mL	170356N
		25 mL	170357N
		50 mL	170358N



# Advantages of the Rapid-Flow system



## Available in the widest range of membranes:

- Polyethersulfone (PES) is the most broadly applicable and best-performing membrane for most cell and tissue culture media. Features fast flow rates, low rates of clogging, and low protein binding. 0.2  $\mu$ m is stem cell tested
- Surfactant free cellulose acetate (SFCA) contains no wetting agents found in regular cellulose acetate known to be toxic to certain cell lines. SFCA has low protein binding
- Nylon is tough and alcohol-resistant, and has a lower levels of extractables
- Cellulose nitrate (CN) is ideal for filtering and clarifying buffers and other aqueous solutions when protein binding is not a concern

## Available in the widest range of pore sizes:

- 0.1  $\mu$ m protects against mycoplasma contamination
- 0.2  $\mu$ m is considered sterilizing-grade and removes all bacteria and larger microbes
- 0.45  $\mu$ m and 0.8  $\mu$ m for specialty applications, particle removal, and general clarification

When evaluating extractables, less is more. The lower the extractables, the less chance of those compounds leaching into your filtered sample. Thermo Scientific<sup>™</sup> Nalgene<sup>™</sup> Rapid-Flow<sup>™</sup> Receiver Bottles have lower extractables present compared to all other equivalent filtration devices. We source only virgin resins from high-quality suppliers to ensure consistency and quality. We also optimize our products and processes to avoid the use of various additives and slip agents whenever possible.



Figure 1. Image depicting the results from the Rapid-Flow filter unit receiver bottle compared to other equivalent receiver bottles. Results include the total organic carbon (TOC), absorbance, and metals analysis.

# Performance on many levels

Testing shows that Rapid-Flow filters deliver superior performance

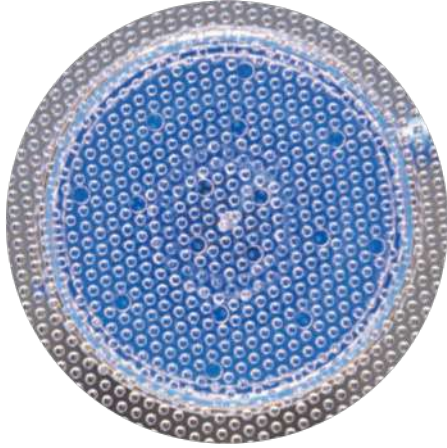


Figure 2. Nalgene Rapid-Flow Sterile Single Use Filter Units have a column-based membrane support plate.

## Consistently consistent

All Nalgene filters now have the Rapid-Flow multi-column membrane-support system. This proprietary system provides a uniform, consistent separation between touchpoints with the membrane, minimizing gap stress to maintain optimal flow.

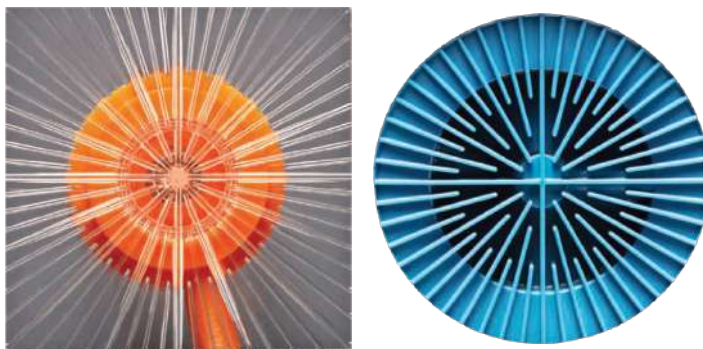


Figure 3. The radial spoke design used by other suppliers can result in suboptimal flow rates.

## Mind the gaps

Other filters use a radial spoke support system. The gaps between spokes lack uniformity and consistency in membrane support, leading to increased stress and distortion. The result? Suboptimal flow rate and throughput.

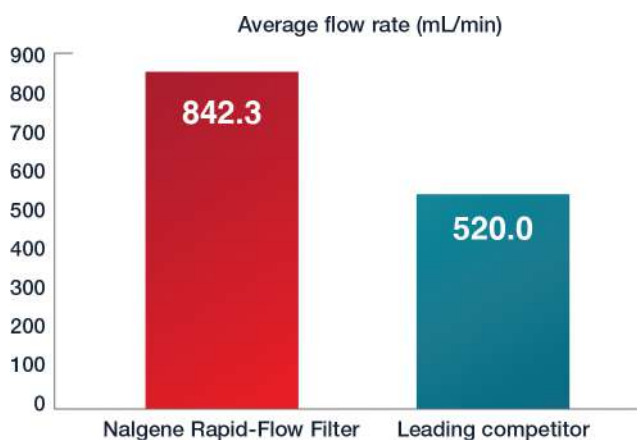






Figure 4. Rapid-Flow Sterile Single Use Filter Units can have up to 38% faster flow rate than units from other suppliers.

# Ordering information

Product		Capacity	Number per case	Cat. No.
Nalgene Sterile Storage Bottles		150 mL	24	455-0150
		250 mL	24	455-0250
		500 mL	12	455-0500
		1,000 mL	12	455-1000

Product	Capacity	Pore size	Membr. diam.	Number per case	Cat. No.
PES Filter Units					
	50 mL	0.1 µm	50 mm	12	564-0010
	50 mL	0.2 µm	50 mm	12	564-0020
	50 mL	0.45 µm	50 mm	12	564-0045
	150 mL	0.1 µm	50 mm	12	565-0010
	150 mL	0.2 µm	50 mm	12	565-0020
	150 mL	0.45 µm	50 mm	12	165-0045
	250 mL	0.1 µm	50 mm	12	568-0010
	250 mL	0.2 µm	50 mm	12	568-0020
	250 mL	0.45 µm	50 mm	12	168-0045
	500 mL	0.1 µm	75 mm	12	566-0010
	500 mL	0.2 µm	75 mm	12	566-0020
	500 mL	0.45 µm	75 mm	12	166-0045
	500 mL	0.2 µm	90 mm	12	569-0020
	500 mL	0.45 µm	90 mm	12	169-0045
	1,000 mL	0.1 µm	90 mm	12	567-0010
	1,000 mL	0.2 µm	90 mm	12	567-0020
	1,000 mL	0.45 µm	90 mm	12	167-0045

SFCA Filter Units					
	150 mL	0.2 µm	50 mm	12	155-0020
	150 mL	0.45 µm	50 mm	12	155-0045
	250 mL	0.2 µm	50 mm	12	157-0020
	250 mL	0.45 µm	50 mm	12	157-0045
	500 mL	0.2 µm	75 mm	12	156-4020
	500 mL	0.45 µm	75 mm	12	156-4045
	500 mL	0.2 µm	90 mm	12	162-0020
	500 mL	0.45 µm	90 mm	12	162-0045
	1,000 mL	0.2 µm	75 mm	12	158-0020
	1,000 mL	0.45 µm	75 mm	12	158-0045
	1,000 mL	0.2 µm	90 mm	12	161-0020
	1,000 mL	0.45 µm	90 mm	12	161-0045

Nylon Filter Units					
	150 mL	0.2 µm	50 mm	12	150-0020
	150 mL	0.45 µm	50 mm	12	150-0045
	250 mL	0.2 µm	50 mm	12	153-0020
	250 mL	0.45 µm	50 mm	12	153-0045
	500 mL	0.2 µm	75 mm	12	151-4020
	500 mL	0.45 µm	75 mm	12	151-4045
	500 mL	0.2 µm	90 mm	12	163-0020
	1,000 mL	0.2 µm	75 mm	12	154-0020
	1,000 mL	0.45 µm	75 mm	12	154-0045
	1,000 mL	0.2 µm	90 mm	12	164-0020

## Nalgene Rapid-Flow Filter Unit specifications and ordering information cont.

Product	Capacity	Pore size	Membr. diam.	Thread size	Number per case	Cat. No.
<b>CN Filter Units</b>						
	150 mL	0.2 µm	50 mm	—	12	125-0020
	150 mL	0.45 µm	50 mm	—	12	125-0045
	150 mL	0.8 µm	50 mm	—	12	125-0080
	250 mL	0.2 µm	50 mm	—	12	126-0020
	250 mL	0.45 µm	50 mm	—	12	126-0045
	250 mL	0.8 µm	50 mm	—	12	126-0080
	500 mL	0.2 µm	75 mm	—	12	450-0020
	500 mL	0.45 µm	75 mm	—	12	450-0045
	500 mL	0.8 µm	75 mm	—	12	450-0080
	1,000 mL	0.2 µm	75 mm	—	12	127-0020
	1,000 mL	0.45 µm	75 mm	—	12	127-0045
	1,000 mL	0.8 µm	75 mm	—	12	127-0080
<b>SFCA Bottle Top Filters</b>						
	150 mL	0.2 µm	50 mm	33 mm	12	290-3320
	150 mL	0.45 µm	50 mm	33 mm	12	290-3345
	150 mL	0.2 µm	50 mm	45 mm	12	290-4520
	150 mL	0.45 µm	50 mm	45 mm	12	296-4545
	500 mL	0.2 µm	75 mm	33 mm	12	291-3320
	500 mL	0.45 µm	75 mm	33 mm	12	291-3345
	500 mL	0.2 µm	75 mm	45 mm	12	291-4520
	500 mL	0.45 µm	75 mm	45 mm	12	291-4545
	1,000 mL	0.2 µm	90 mm	33 mm	12	292-3320
	1,000 mL	0.2 µm	90 mm	45 mm	12	292-4520
<b>PES Bottle Top Filters</b>						
	150 mL	0.1 µm	50 mm	45 mm	12	596-4510
	150 mL	0.2 µm	50 mm	33 mm	12	596-3320
	150 mL	0.2 µm	50 mm	45 mm	12	596-4520
	150 mL	0.45 µm	50 mm	33 mm	12	296-3345
	150 mL	0.45 µm	50 mm	45 mm	12	296-4545
	250 mL	0.1 µm	50 mm	45 mm	12	598-4510
	250 mL	0.2 µm	50 mm	45 mm	12	598-4520
	500 mL	0.1 µm	75 mm	45 mm	12	595-4510
	500 mL	0.2 µm	75 mm	33 mm	12	595-3320
	500 mL	0.2 µm	75 mm	45 mm	12	595-4520
	500 mL	0.45 µm	75 mm	33 mm	12	295-3345
	500 mL	0.45 µm	75 mm	45 mm	12	295-4545
	1,000 mL	0.1 µm	90 mm	45 mm	12	597-4510
	1,000 mL	0.2 µm	90 mm	33 mm	12	597-3320
	1,000 mL	0.2 µm	90 mm	45 mm	12	597-4520

Find out more at [thermofisher.com/filtration](https://thermofisher.com/filtration)

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# Nalgene PETG square media bottles, diagnostic bottles and serum vials

## Product regulatory guide

	2019	342020	382019
ISO 14644-1 Class 7	Yes	Yes	Yes
USP <788>, EP, JP	-	-	Yes
ADCF	-	Yes	Yes
10 <sup>-6</sup> SAL	Yes	Yes	Yes
Heat shrink banded	Yes	-	Yes
Heat sealed sleeve / trayless	-	-	Yes
2X polylined carton	-	Yes	Yes
HDPE Closure	White	Natural	Natural

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# Key product specifications

Legal Manufacturer	
Nalgene Nunc International Corporation, A part of Thermo Fisher Scientific Inc. 236 Perinton Parkway Fairport, NY 14450	Nalgene Nunc International Corporation, A part of Thermo Fisher Scientific Inc. 75 Panorama Creek Drive, Rochester, NY 14625
<b>Shelf-Life (Sterile SKUs Only)</b>	5 (five) years
Product Release Testing	
<b>Visual Inspection</b>	Visual inspection is performed on product samples collected at regular intervals throughout each production run.
<b>Dimensional Inspection</b>	Dimensional inspection is performed on product samples collected at regular intervals throughout each production run.
<b>Pyrogenic Testing (Sterile SKUs Only)</b>	Where products have a pyrogen claim, product determined to be non-pyrogenic at a level <0.5 EU/mL per USP <85>
<b>Performance Inspection (Leak Testing)</b>	Performance inspection is performed on product samples collected at regular intervals throughout each production run. *Not applicable to Crimp vials: 342030-XXXX 322030-XXXX
<b>Leak Tested at 2 psi for 2 minutes</b>	322020-0030, 322020-0060, 322021-0030, 322021-0060, 342020-0030, 342020-2000, 342020-0060, 342024-0030, 342024-0060, 342151-0200, 342151-0240
<b>Leak Tested at 10 psi for 2 minutes</b>	2035-0XXX, 312158-XXXX, 322020-0125, 322020-0250, 322020-0500, 322020-1000, 322021-0125, 322032-XXXX, 342020-0125, 342020-0250, 342020-0500, 342020-1000, 342020-9500, 342023-XXXX, 342024-0125, 342024-0250, 342024-0500, 342024-1000, 342032-XXXX, 342033-0010, 342035-0XXX, 342158-XXXX, 342178-XXXX, 342151-038X, 342141-0384

Continued next page

Legal Manufacturer (continued)		
Additional Product Information		
<b>Sterilization Dose - (Sterile Products only)</b>	<b>Irradiated at 19–28 kGy</b>	<b>Irradiated at 20–45 kGy</b>
	2035-0XXX	342020-XXXX
	342023-XXXX	342024-XXXX
	342030-XXXX	342151-0240
	342032-XXXX	342151-0384
	342035-0XXX	
	342151-0380	
	342158-XXXX	
	342178-XXXX	
	342141-0384	
	342033-0010	
Product Irradiation Sterilized Sterility assurance level (SAL): 10 <sup>-6</sup> where product has a shelf life or is specified. Product was dosimetric released per ANSI/AAMI/ISO 11137 guidelines. Sterilization dose audits performed quarterly.		

<b>Certifications</b>	<b>Representative product family samples that were irradiated at 45 kGy were tested to and met the requirements to the following standards:</b>
	<ul style="list-style-type: none"> <li>ISO 10993-5:2009(E) Biological evaluation of medical devices Part 5: Tests for <i>In Vitro</i> cytotoxicity</li> <li>USP 37 &lt;88&gt;; ISO 10993-6:2007 Biological Reactivity Tests, Biological evaluation of medical devices Part 6: Tests for local effects after implantation</li> <li>USP 37 &lt;661&gt;; Containers – Plastic</li> <li>ISO 10993-3:2003 Bacterial Mutagenicity Test, Biological evaluation of medical devices Part 3: Tests for genotoxicity, carcinogenicity, and reproductive toxicity</li> </ul>
<b>Exclusions: Amber products and closure liners not tested</b>	

Thermo Fisher Scientific hereby certifies that the products identified above are manufactured and/or distributed according to the requirements of product and quality specifications as maintained in our quality management system.

ISO Certificate link:

<https://www.thermofisher.com/us/en/home/technical-resources/manufacturing-site-iso-certifications.html>

*Product information contained within this document is provided to the best of our knowledge and belief, but without obligation or liability. It is accurate at the date of release, but subject to change. This product regulatory guide is not a product warranty statement or recommendation for product usage. Any validation information or advice provided by Thermo Fisher Scientific herein is for reference purposes only and does not relieve customer or users of their responsibility for determining the suitability of our products for the customer's or user's intended use. This regulatory guide is not a substitute for any part of the customer's or user's own internal validation, nor may the validation information contained herein be submitted to regulatory bodies.*



# Materials of construction

Catalog Number	Material Information		Where Used Size/Capacity
	Component Part Number	Description	
Bottles and Closures			
322020-XXXX	8-0001-32	PETG Resin	Bottles: 30mL–2000mL
342020-XXXX	8-0042-01	HDPE Resin	Closures: 20mm–53B dia.
342023-XXXX	8-0001-32	PETG Resin	Bottles: 60mL–1000mL
	8-0042-01	HDPE Resin	Closure:
	1-1803-42 or 1-1803-43	Silicone PTFE Liner	1-1803-42 - 24mm dia. 1-1803-43 - 38mm dia.
342024-XXXX	8-0001-32	PETG Resin	Bottles: 30mL–1000mL
Amber Bottle and Closure			
322021-XXXX	8-0001-32	PETG Resin	Bottles: 30mL–125mL Closures: 20mm–38mm
	8-0099-33	Amber colorant	
	8-0042-01	HDPE Resin	
	8-0097-17	Amber Colorant	
Diagnostic Bottles and Serum Vials			
322030-0010 322032-00XX 342030-XXXX 342032-00XX	8-0001-32	PETG Resin	Serum Vials: 3mL–20mL
2035-00XX 342035-00XX	8-0001-32	PETG Resin	Diagnostic Bottles: 5mL–20mL Closure with foam liner 20mm dia.
	8-0042-01	HDPE Resin	
	8-0099-34	White Colorant	
	1-1860-82	LDPE/HDPE Liner	
342033-0010	8-0001-32	PETG Resin	Serum Vials: 10mL
	8-0099-33	Amber Colorant	
Replacement Closures			
342151-0XXX	8-0042-01	HDPE Resin	Closures: 38mm–45mm
312158-0021	8-0042-01	HDPE Resin	Closure with foam liner 20mm dia.
	8-0099-34	White Colorant	
	1-1860-82	LDPE/HDPE Liner	
312158-0022	8-0042-01	HDPE Resin	Closure with foam liner 20mm dia.
	8-0099-43	Black Colorant	
	1-1860-82	LDPE/HDPE Liner	

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Nalgene™ PETG Square Media Bottles, Diagnostic Bottles & Serum Vials Product Regulatory Guide | 2

Document Number: PRGPETGBTLREV06  
Effective Date: 03-08-2022

Catalog Number	Material Information (Continued)		Where Used Size/Capacity
	Component Part Number	Description	
342178-0XXX	8-0042-01	HDPE Resin	Closure with silicone liner 24mm–38mm
	1-1803-42 or 1-1803-43	Silicone PTFE Liner	
342141-0384	8-0042-01	HDPE Resin	Tamper Evident Closure: 38mm

For compliance, please review all attached Material Information Sheets (MIS) associated with the component parts listed in Table 1 for your NNI finished good. Please note: Full finished goods compliance can only be claimed if each component part used in the manufacture is documented as being compliant.

