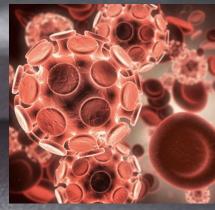
Corning[®] CoolBox[™] and CoolRack[®] Consumable Compatibility Guide

A family of solutions that enables consistent, reproducible, and standardized sample handling





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Corning[®] CoolBox[™] for Consistent and Reproducible Cooling



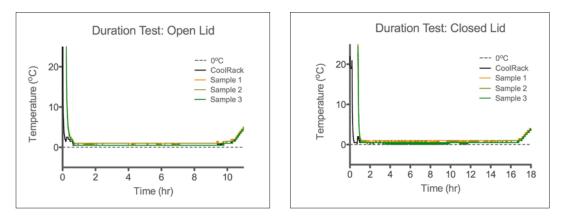
Corning's sample cooling and heating solutions enable consistent, reproducible, standardized temperature control. These solutions address the pitfalls of temperature regulation and reduce contamination risk, keeping your samples cool and stable while you work.

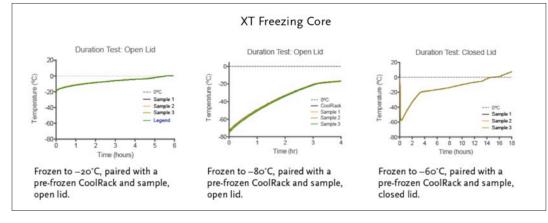
The family of solutions is flexible so you can select the right components for your application and working style. Pair a Corning CoolBox system and Corning CoolRack[®] thermo-conductive modules together for an ice-free cooling option or place a CoolRack on ice, dry ice, or liquid nitrogen in a Corning ice bucket or pan for a more traditional solution.

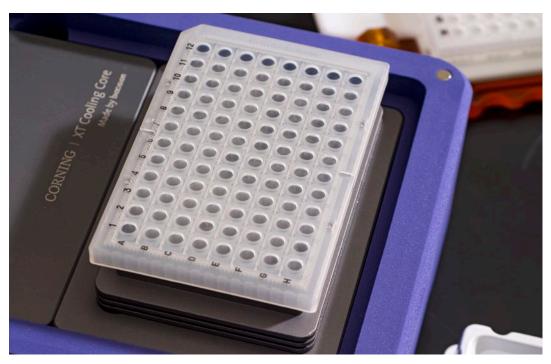
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	Corning CoolRack with a Corning CoolBox XT/2XT	Corning CoolRack with a Corning XT Starter	Corning CoolRack in a Corning Ice Bucket
Description	Ideal and versatile benchtop ice-free cooling system that is designed to be compatible with most Corning CoolRacks. These systems offer the longest cooling times.	An open-platform cooler that accommodates most Corning CoolRack modules, making it a versatile and flexible tool for a variety of applications.	A solution that can be used with ice, dry ice, liquid nitrogen, or heat sources while standardizing temperature consistency.
Benefits	 Ice-free, reduces contamination risk Hours of benchtop cooling at consistent temperatures Includes lid, which allows the temperature to stay consistently cold for a longer period of time 	 Use two XT starters side-by-side to accommodate larger size formats 	 Improved temperature stability over ice alone No "drowning" samples No direct contact to ice, which reduces contamination risk
Applications	 Ideal for use under the hood in a where using ice may pose a con Also ideal for use with temperat ECMs, etc. 	tamination risk.	Ideal for benchtop application in a non- aseptic environment that still requires temperature control.
0°C to 4°C cooling	10 hours without the lid	4 hours	N/A
with cooling core	16 hours with the lid		
-20°C freezing with freezing core without the lid	5 hours	5 hours	N/A
-20°C freezing with lid closed	8 hours with the lid	N/A	N/A

Performance Data

Cooling and freezing duration of Corning[®] CoolBox[™] systems with a Corning CoolRack[®] sample module insert.







Corning CoolBox system featured with Corning CoolRack thermo-conductive module.

Corning[®] CoolRack[®] for Stable Temperature Control

Corning CoolRacks are thermo-conductive modules that when placed directly onto a temperature source between -196°C to >100°C, will rapidly equilibrate to that temperature. CoolRack modules ensure ±0.1°C temperature uniformity across all tubes and plates when cooling, snap-freezing, heating, or thawing.

This temperature stability helps reduce the variability originating from tubes, plates, or wells placed directly into ice, dry ice, alcohol baths, water baths, and other cooling sources. Regardless of your desired configuration, you can feel confident that you will keep your sample temperature stable and set your research up for success—right from the start.

Also available from Corning are ThermalTray thermo-conductive platforms, which support Corning CoolRack modules in liquid temperature sources such as melting ice, water baths, and liquid nitrogen. Made of the same highly conductive alloy as Corning CoolRack and Corning CoolSink[®] modules, ThermalTray platforms conduct the source temperature to the CoolRack or CoolSink and, ultimately, to your samples.



Visit **www.corning.com/lifeciences** for more information on Corning CoolRack and Corning CoolSink[®] versatility and performance.

Increased Temperature Consistency

Non-uniform Plate Cooling with Crushed Ice

Final equilibrium well temperature for a 96-well flat bottom microplate in direct contact with crushed ice. Colors represent 0.5°C temperature intervals of the corresponding plate wells from 4.5°C to 7.4°C.

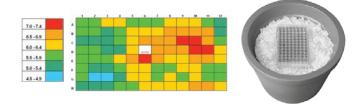


Plate directly on crushed ice, the plate does not reach 4°C in any of the wells and well-to-well temperature is uneven.

Uniform Plate Cooling with Corning[®] CoolSink™ XT 96F Module

Corning CoolSink XT 96F on ice. Colors represent 0.5°C temperature intervals of the corresponding plate wells ranging from 2.5°C to 4.4°C. The white cell represents the well that was fitted with the thermocouple probe.

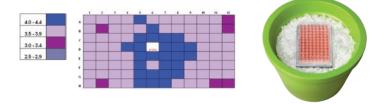


Plate placed on Corning CoolSink module and then placed on ice shows more uniform well-to-well temperature and all wells at or below 4°C. (Blue center plate wells are slightly warmer due to curvature of the underside of the plate). Published in Biotechniques, November 2010.



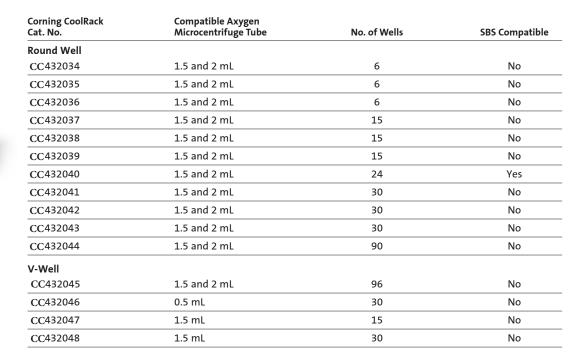


Corning[®] CoolBox[™] features a modular design that allows you to build a custom solution specific for your consumable and sample needs.

Build your cooling solution – it's as easy as 1-2-3.

- Select a Corning CoolRack[®] module based on your consumable and sample quantity.
- 2 Match with the appropriate ice-free Corning CoolBox or ice bucket/pan solution.

1. Choose a Corning CoolRack:





Ice-free Corning CoolBox							lc	e Buckets and Pa	ins		
		Incine m	Rendered						1		
	XT Starter	CoolBox XT	CoolBox 2XT		9L Ice pan	9L Ice pan with lid and handles	4L Ice pan	4L Ice pan with lid and handles	1L Ice Pan	4L Round bucket with lid	2.5L Round bucket with lid
Corning CoolRack Cat. No.		er of Corning Co can be accommo				Number	of Corning C	oolRacks that ca	n be accomm	nodated	
CC432034	4	4	8		25	25	11	11	2	4	5
CC432035	4	4	8		25	25	11	11	2	4	5
CC432036	4	4	8		25	25	11	11	2	4	5
CC432037	1	1	4		9	9	3	3	1	2	2
CC432038	1	1	4		9	9	3	3	1	2	2
CC432039	1	1	4		9	9	3	3	1	2	2
CC432040	1	1	2		5	5	2	2	-	1	1
CC432041	1	-	1		4	4	2	2	-	1	1
CC432042	1	-	1		4	4	2	2	-	1	1
CC432043	1	-	1		4	4	2	2	-	1	1
CC432044		e with two XT oling Cores in a			1	1	-	-	-	-	-
CC432045		se with two XT ooling Cores in			1	1	-	-	-	-	-
CC432046	1	_	1		4	4	2	2	_	1	1
CC432047	1	1	4		9	9	3	3	1	2	2
CC432048	1	-	1		4	4	2	2		1	1

2. Choose a Corning[®] CoolBox[™] Ice-free Solution or a Corning Ice Bucket

Please see page 13 for ice bucket and pan complete ordering information and color options. Corning CoolBox is also available in several color options. Contact your Corning Account Manager or visit **www.corning.com/lifesciences** to view all available options.



Corning ice buckets and pans



Choose a Corning CoolRack:

Corning CoolRack Cat. No.	Compatible PCR Consumable	SBS Compatible
CC432053	96-well PCR microplate, PCR 12-strip tubes, or microcentrifuge tubes	Yes
CC432054	Holds 12 1.5 or 2.0 mL microcentrifuge tubes or PCR 6-strip tubes	Yes
CC432055	384-well PCR microplate	Yes

Choose a Corning CoolBox™ Ice-free Solution or a Corning Ice Bucket

	Ice-free C	orning CoolBox				lc	e Buckets and Par	15		
		Inciston .	(Franking)					1		
	XT Starter	CoolBox XT	CoolBox 2XT	9L Ice pan	9L Ice pan with lid and handles	4L Ice pan	4L Ice pan with lid and handles	1L Ice Pan	4L Round bucket with lid	2.5L Round bucket with lid
Corning CoolRack Cat. No.		er of Corning Co can be accomm			Number	r of Corning (CoolRacks that ca	n be accomm	odated	
CC432053	1	1	2	5	5	2	2	-	1	1
CC432054	1	1	2	5	5	2	2	-	1	1
CC432055	1	1	2	5	5	2	2	-	1	1

Centrifuge Tubes

Choose a consumable:

Cat. No.	Description
15 mL	
CC430791	Corning [®] centrifuge tube
50 mL	
CC430829	Corning conical centrifuge tubes
250 mL	
CC430776	Corning centrifuge tube



Products listed are Corning suggested compatible consumables, however Corning CoolRack® is also compatible with most centrifuge tube brands. Visit www.corning.com/lifesciences to get complete product information.



Choose a Corning CoolRack:

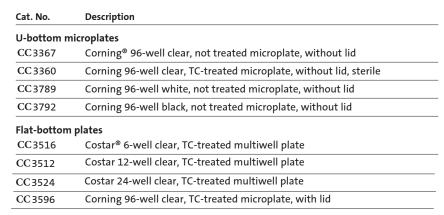
Compatible PCR Consumable	SBS Compatible
5 mL centrifuge tube	No
15 mL centrifuge tube	No
15 mL centrifuge tube	No
50 mL centrifuge tube	No
250 mL centrifuge tube	No
250 mL Easy Grip storage bottle	No
	5 mL centrifuge tube 15 mL centrifuge tube 15 mL centrifuge tube 50 mL centrifuge tube 250 mL centrifuge tube

Choose a Corning CoolBox™ Ice-free Solution or a Corning Ice Bucket

	Ice-free	Corning CoolBox		Ice Buckets and Pans						
		Incia a	Armability							
	XT Starter	CoolBox XT	CoolBox 2XT	9L Ice pan	9L Ice pan with lid and handles	4L Ice pan	4L Ice pan with lid and handles	4L Round bucket with lid	2.5L Round bucket with lid	
Corning CoolRack Cat. No.	CoolRack Number of Corning CoolRacks				Number of Co	orning CoolRad	cks that can be acc	commodated		
CC432060										
00452000	1	1	2	5	5	2	2	1	1	
CC432060	1	1	2	5	5	2	2	1	1	
		1 1 1						1 1 1	1 1 1	
CC432061			2	6	6	2	2	1 1 1 1	1 1 1 1	
CC432061 CC432068			2 2	6 5	6 5	2	2 2	1 1 1 1 1	1 1 1 1 1	

Multiwell Microplates

Choose a consumable:



Products listed are Corning suggested compatible consumables; however, Corning CoolSink[®] is also compatible with most multiwell plate brands. Visit **www.corning.com/lifesciences** to get complete product information.

Choose a Corning CoolSink:

Corning CoolSink Cat. No.	Compatible Microplate Consumable	SBS Compatible
CC432070	Flat bottom microplate	Yes
CC432071	96-well U-bottom microplate	Yes
CC432072	55 mL reagent reservoir	No

Choose a Corning CoolBox™ Ice-free Solution or a Corning Ice Bucket

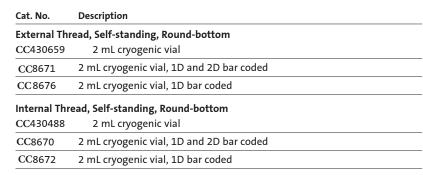
Ice-free Corning CoolBox				Ice Buckets and Pans							
		- Incan	and the second second								
	XT Starter	CoolBox XT	CoolBox 2XT	9L Ice pan	9L Ice pan with lid and handles	4L Ice pan	4L Ice pan with lid and handles	4L Round bucket with lid	2.5L Round bucket with lid		
Corning CoolSink Cat. No.	Num that	ber of Corning Co can be accommo	ool Sinks odated		Number of Co	orning CoolRacl	ks that can be acco	ommodated			
CC432070	1	1	2	5	5	2	2	1	1		
CC432071	1	1	2	5	5	2	2	1	1		
CC432072	_	_	1	6	6	1	1	1	1		





2 mL Cryogenic Vials

Choose a consumable:



Products listed are Corning suggested compatible consumables; however, Corning CoolRack[®] is also compatible with most cryogenic vial brands. Visit **www.corning.com/lifesciences** to get complete product information.

Choose a Corning CoolRack:

Corning CoolRack Cat. No.	Number of Wells
CC432049	15
CC432050	24, SBS-compatible
CC432051	45
CC432052	30
CC432056	96 (no Corning consumables to go with 0.5 mL 2D tubes)
CC432057	96 (no Corning consumbales to go with 1.4 mL 2D tubes)



Choose a Corning CoolBox™ Ice-free Solution or a Corning Ice Bucket

Ice-free Corning CoolBox					Ice Buckets and Pans						
			and the second s		-				1		
	XT Starter	CoolBox XT	CoolBox 2XT		9L e pan	9L Ice pan with lid and handles	4L Ice pan	4L Ice pan with lid and handles	1L Ice Pan	4L Round bucket with lid	2.5L Round bucket with lid
Corning CoolRack Cat. No.	Num that	ber of Corning Co can be accommo	oolRacks dated			Number	of Corning C	oolRacks that can	be accommo	odated	
CC432049	1	1	4		9	9	3	3	1	2	2
CC432050	1	1	2		5	5	2	2	_	1	1
CC432051	_	-	1		3	3	1	1	_	1	1
CC432052	1	_	1		4	4	2	2	_	1	1
CC432056	1	1	2		5	5	2	2	_	1	1
CC432057	1	1	2		5	5	2	2	_	1	1





5 mL Cryogenic Vials

Choose a consumable:

Cat. No.	Description
CC430663	5 mL cryogenic vial, round bottom, external thread,self-standing
CC430656	5 mL cryogenic vial, round bottom, internal thread, self-standing

Products listed are Corning suggested compatible consumables; however, Corning[®] CoolRack[®] is also compatible with most cryogenic vial brands. Visit **www.corning.com/lifesciences** to get complete product information.

Choose a Corning CoolRack:

Corning CoolRack Cat. No.	Number of Wells	SBS Compatible
CC432067	9	No



Choose a Corning CoolBox™ Ice-free Solution or a Corning Ice Bucket

	Ice-free Corning CoolBox			Ice Buckets and Pans					
		- Incom	(Armanity)						
Corning	XT Starter	CoolBox XT	CoolBox 2XT	9L Ice pan	9L Ice pan with lid and handles	4L Ice pan	4L Ice pan with lid and handles	4L Round bucket with lid	2.5L Round bucket with lid
CoolRack Cat. No.	Rack Number of Corning CoolRacks			Number of C	orning CoolRa	cks that can be acc	commodated		
CC432067	1 Requires	1 S XT or 2XT exter	2 Ision collar	6	6	2	2	1	1

Ordering Information

Buckets and Pans

Description	Dimensions (L x W x H)	Purple	Lime Green	Orange	Pink	Blue	Green	Red
Mini 1L ice pan	15.9 x 15.9 x 9.5 cm	CC432121	CC432119	CC432118	CC432120	CC432116	CC432115	CC432117
Midi 4L ice pan	31.1 x 22.2 x 11.4 cm	CC432109	CC432107	CC432106	CC432108	CC432104	CC432103	CC432105
Midi 4L ice pan with lid	35.0 x 22.5 x 11.4 cm	CC432114	CC432112	CC432111	CC432113	CC432110	_	-
Maxi 9L ice pan	40.6 x 31.8 x 11.4 cm	CC432099	CC432097	CC432096	CC432098	CC432094	CC432093	CC432095
Maxi 9L ice pan with lid	44.5 x 32.5 x 11.4 cm	CC432102	CC432101	_	_	CC432100	_	_
Round 2.5L ice bucket with lid	Top diameter: 24.1 cm Height: 12.1 cm	CC432135	CC432133	CC432132	CC432134	CC432129	CC432130	CC432131
Round 4L ice bucket with Lid	Top diameter: 26.0 cm Height: 18.4 cm	CC432128	CC432126	CC432125	CC432127	CC432123	CC432122	CC432124

Corning[®] CoolBox™ XT Modules

Cat. No.	Description	Contains	Qty/Cs
CC432021	CoolBox XT, purple	Holder and one Cooling Core	1
CC432022	CoolBox XT, green	Holder and one Cooling Core	1
CC432023	CoolBox XT, orange	Holder and one Cooling Core	1
CC432024	CoolBox XT, pink	Holder and one Cooling Core	1
CC432025	CoolBox 2XT, purple	Holder and two Cooling Cores	1
CC432026	CoolBox 2XT, green	Holder and two Cooling Cores	1
CC432027	CoolBox 2XT, orange	Holder and two Cooling Cores	1
CC432028	CoolBox 2XT, pink	Holder and two Cooling Cores	1

Corning CoolBox Accessories

Cat. No.	Description	CoolBox XT Starter 432014	CoolBox XT 423021	CoolBox 2XT 432025
CC432081	XT Cooling core	1	1	2
CC432082	XT Freezing core	1	1	2
CC432083	Extension collar for CoolBox XT, purple	_	1	_
CC432084	Extension collar for CoolBox XT, green	_	1	-
CC432085	Extension collar for CoolBox XT, orange	_	1	-
CC432086	Extension collar for CoolBox XT, pink	_	1	_
CC432087	Extension collar for CoolBox 2XT, purple	_	-	1
CC432088	Extension collar for CoolBox 2XT, green	_	-	1
CC432089	Extension collar for CoolBox 2XT, orange	_	-	1
CC432090	Extension collar for CoolBox 2XT, pink	_	-	1

Corning CoolSink[®] Plate and Reservoir Modules

Cat. No.	Description	CoolBox XT Starter 432014	CoolBox XT 423021	CoolBox 2XT 432025
CC432070	CoolSink LX55	1	1	2
CC432071	CoolSink XT96F	1	1	2
CC432072	CoolSink LV	_	-	1

Ordering Information (Continued)

Corning[®] CoolRack[®] M – Microcentrifuge Tube Modules

		ThermalTray				
Cat. No.	Description	ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075		
CC432034	CoolRack M6, gray	12	12	12		
CC432035	CoolRack M6, green	12	12	12		
CC432036	CoolRack M6, orange	12	12	12		
CC432037	CoolRack M15, gray	4	4	4		
CC432038	CoolRack M15, green	4	4	4		
CC432039	CoolRack M15, orange	4	4	4		
CC432040	CoolRack XT M24	3	3	3		
CC432041	CoolRack M30, gray	2	2	2		
CC432042	CoolRack M30, green	2	2	2		
CC432043	CoolRack M30, orange	2	2	2		
CC432044	CoolRack M90	1	1	1		
CC432045	CoolRack M96 ID	1	1	1		

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Corning CoolRack[®] M-PF – Conical Microcentrifuge Tube Modules with Profile-fit Wells

Cat. No.		ThermalTray				
	Description	ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075		
CC432046	CoolRack 500 μL M30-PF	2	2	2		
CC432047	CoolRack M15-PF	4	4	4		
CC432048	CoolRack M30-PF	2	2	2		

Corning CoolRack CF – Cryogenic Vial and FACS Tube Modules

		ThermalTray				
Cat. No.	Description	ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075		
CC432049	CoolRack CF15	4	4	4		
CC432050	CoolRack XT CFT24	3	3	3		
CC432051	CoolRack CF45	1	1	1		
CC432052	CoolRack CFT30	2	2	2		

Corning CoolRack PCR – PCR Tube and Plate Modules

Cat. No.		ThermalTray			
	Description	ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075	
CC432053	CoolRack XT PCR96	3	3	3	
CC432054	CoolRack XT M-PCR	3	3	3	
CC432055	CoolRack XT PCR384	3	3	3	

Corning CoolRack – Tall Tube Modules

Cat. No.		ThermalTray				
	Description	ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075		
CC 432060	CoolRack XT 5mL	3	3	3		
CC 432061	CoolRack 15 mL	3	3	3		
CC432062	CoolRack 50 mL	3	3	3		
CC432063	CoolRack 250 mL-PF	3	3	3		
CC 432064	CoolRack 250 mL-B	3	3	3		
CC432068	CoolRack L	3	3	3		

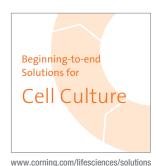
Ordering Information (Continued)

Corning[®] CoolSink[®] Plate and Reservoir Modules

			ThermalTray				
Cat. No.	Description	ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075			
CC432070 CoolSir	nk LX55	3	3	3			
CC432071 CoolSir	nk XT96F	3	3	3			
CC432072 CoolSir	nk LV	4	4	4			

For more specific information on claims, visit the Certificates page at 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.



At Corning, cells are in our culture. In our continuous efforts to improve efficiencies and develop new tools and technologies for life science researchers, we have scientists working in Corning R&D labs across the globe, doing what you do every day. From seeding starter cultures to expanding cells for assays, our technical experts understand your challenges and your increased need for more reliable cells and cellular material.

It is this expertise, plus a 160-year history of Corning innovation and manufacturing excellence, that puts us in a unique position to offer a beginning-to-end portfolio of high quality, reliable cell culture consumables.

For additional product or technical information, visit **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.

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