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

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



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



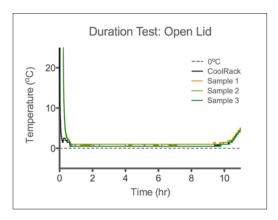
Corning's sample cooling and heating solutions enable consistent, reproducible, standardized temperature control. These solutions address the pitfalls of temperature regulation and reduce contamination risk, keeping your samples cool and stable while you work.

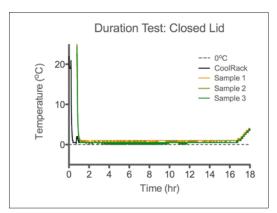
The family of solutions is flexible so you can select the right components for your application and working style. Pair a Corning CoolBox system and Corning CoolRack® thermo-conductive modules together for an ice-free cooling option or place a CoolRack on ice, dry ice, or liquid nitrogen in a Corning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

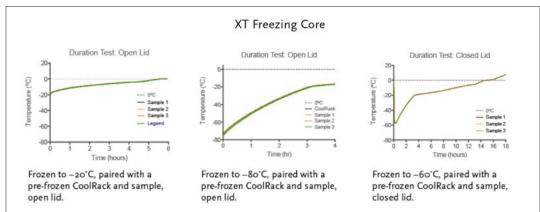
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	Corning CoolRack with a Corning CoolBox XT/2XT	Corning CoolRack with a Corning XT Starter	Corning CoolRack in a Corning Ice Bucket
Description	Ideal and versatile benchtop ice-free cooling system that is designed to be compatible with most Corning 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 cont Also ideal for use with temperat ECMs, etc. 	amination 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

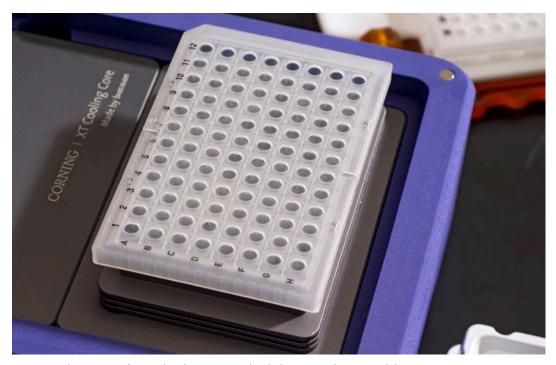
Performance Data

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.

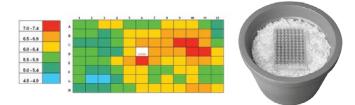


Plate directly on crushed ice, the plate does not reach 4°C in any of the wells and well-to-well temperature is uneven.

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.

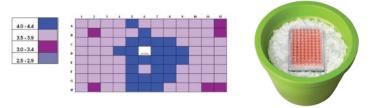


Plate placed on Corning CoolSink module and then placed on ice shows more uniform well-to-well temperature and all wells at or below 4°C. (Blue center plate wells are slightly warmer due to curvature of the underside of the plate).

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.

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

Axygen® Microcentrifuge Tubes

1. Choose a consumable:

Cat. No.	Description
MCT-150-C	1.5 mL microcentrifuge tubes
MCT-150-C-S	1.5 mL microcentrifuge tubes
MCT-150-L-C	1.5 mL microcentrifuge tubes
MCT-200-C	2 mL microcentrifuge tubes
MCT-200-C-S	2 mL microcentrifuge tubes
MCT-200-L-C	2 mL microcentrifuge tubes
SCT-050-C	0.5 mL microcentrifuge tubes



Microcentrifuge tubes listed are Corning suggested compatible consumables; however, Corning CoolRack is also compatible with most major microcentrifuge tube brands. Visit **www.corning.com/lifesciences** to get complete product information.

2. Choose a Corning CoolRack:



Corning CoolRack Compatible Axygen Cat. No. Microcentrifuge Tube		No. of Wells	SBS Compatible
Round Well			
432034	1.5 and 2 mL	6	No
432035	1.5 and 2 mL	6	No
432036	1.5 and 2 mL	6	No
432037	1.5 and 2 mL	15	No
432038	1.5 and 2 mL	15	No
432039	1.5 and 2 mL	15	No
432040	1.5 and 2 mL	24	Yes
432041	1.5 and 2 mL	30	No
432042	1.5 and 2 mL	30	No
432043	1.5 and 2 mL	30	No
432044	1.5 and 2 mL	90	No
V-Well			
432045	1.5 and 2 mL	96	No
432046	0.5 mL	30	No
432047	1.5 mL	15	No
432048	1.5 mL	30	No

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

Ice-free Corning CoolBox					lo	e Buckets and Pa	ns			
		Jacob M.	Vindent							
	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 an be accomm			Number	of Corning C	oolRacks that ca	n be accomm	nodated	
432034	4	4	8	25	25	11	11	2	4	5
432035	4	4	8	25	25	11	11	2	4	5
432036	4	4	8	25	25	11	11	2	4	5
432037	1	1	4	9	9	3	3	1	2	2
432038	1	1	4	9	9	3	3	1	2	2
432039	1	1	4	9	9	3	3	1	2	2
432040	1	1	2	5	5	2	2	_	1	1
432041	1	-	1	4	4	2	2	_	1	1
432042	1	-	1	4	4	2	2	_	1	1
432043	1	-	1	4	4	2	2	_	1	1
432044		e with two XT oling Cores in		1	1	-	-	-	-	_
432045		e with two XT oling Cores in		1	1	-	-	-	-	-
432046	1	-	1	4	4	2	2	-	1	1
432047	1	1	4	9	9	3	3	1	2	2
432048	1	-	1	4	4	2	2		1	1



Corning ice buckets and pans

PCR Tubes, Strips, and Microplates

1. Choose a consumable:

Cat. No.	Description
Tube	
PCR-02-C	0.2 mL tube
Strips	
PCR-0208-CP-C	0.2 mL strip tubes
PCR-0208-C	0.2 mL strip tubes
PCR-0208-AF-C	Strip tubes
PCR-0208-AD-C	Strip tubes
Microplates	
PCR-96-HS-AC-C	96-well microplate
PCR-384M2-C	384-well microplate
PCR-384-C	384-well microplate
·	



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



2. Choose a Corning CoolRack:

Corning CoolRack Cat. No.	Compatible PCR Consumable	SBS Compatible
432053	96-well PCR microplate, PCR 12-strip tubes, or microcentrifuge tubes	Yes
432054	Holds 12 1.5 or 2.0 mL microcentrifuge tubes or PCR 6-strip tubes	Yes
432055	384-well PCR microplate	Yes

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

	Ice-free C	orning CoolBox					lo	e Buckets and Par	15		
		Incom	(Findam)	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.		per of Corning Co			Number of Corning CoolRacks that can be accommodated						
432053	1	1	2		5	5	2	2	-	1	1
432054	1	1	2		5	5	2	2	_	1	1
432055	1	1	2		5	5	2	2	_	1	1

Centrifuge Tubes

1. Choose a consumable:

Cat. No.	Description
5 mL	
MCT-500-C	Axygen® MaxyClear Snaplock microcentrifuge tube
15 mL	
430791	Corning® centrifuge tube
352096	Falcon® high clarity conical centrifuge tube
50 mL	
430829	Corning conical centrifuge tubes
352070	Falcon high clarity conical centrifuge tube
250 mL	
430776	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.



2. Choose a Corning CoolRack:

Corning CoolRack Cat. No.	Compatible PCR Consumable	SBS Compatible
432060	5 mL centrifuge tube	No
432061	15 mL centrifuge tube	No
432068	15 mL centrifuge tube	No
432062	50 mL centrifuge tube	No
432063	250 mL centrifuge tube	No
432064	250 mL Easy Grip storage bottle	No

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

	Ice-free Corning CoolBox					Ice Buck	cets and Pans		
		Incine	Property.						
	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.		per of Corning Co can be accommo			Number of Co	orning CoolRa	cks that can be acc	commodated	
432060	1	1	2	5	5	2	2	1	1
432061	1	1	2	6	6	2	2	1	1
432068	1	1	2	5	5	2	2	1	1
432062	1	1	2	6	6	2	2	1	1
432063	1	1	2	6	6	2	2	1	1
432064	1	1	2	6	6	2	2	1	1



Multiwell Microplates

1. Choose a consumable:

Cat. No.	Description					
U-bottom mi	U-bottom microplates					
3367	Corning® 96-well clear, not treated microplate, without lid					
3360	Corning 96-well clear, TC-treated microplate, without lid, sterile					
3789	Corning 96-well white, not treated microplate, without lid					
3792	Corning 96-well black, not treated microplate, without lid					
Flat-bottom p	plates					
3516	Costar® 6-well clear, TC-treated multiwell plate					
353224	Falcon® 6-well clear, TC-treated multiwell plate, with lid					
3512	Costar 12-well clear, TC-treated multiwell plate					
353225	Falcon 12-well clear, TC-treated multiwell plate, with lid					
3524	Costar 24-well clear, TC-treated multiwell plate					
353226	Falcon 24-well clear, TC-treated multiwell plate, with lid					
3596	Corning 96-well clear, TC-treated microplate, with lid					
353075	Falcon 96-well clear, TC-treated microplate, with lid					

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.

2. Choose a Corning CoolSink:



Corning CoolSink Cat. No.	Compatible Microplate Consumable	SBS Compatible
432070	Flat bottom microplate	Yes
432071	96-well U-bottom microplate	Yes
432072	55 mL reagent reservoir	No

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

Ice-free Corning CoolBox				Ice Buckets and Pans						
		Incom	Secretary .							
	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.	Sink Number of Corning CoolSinks			Number of Co	orning CoolRac	ks that can be acco	ommodated			
432070	1	1	2	5	5	2	2	1	1	
432071	1	1	2	5	5	2	2	1	1	
432072	-	-	1	6	6	1	1	1	1	

2 mL Cryogenic Vials





Cat. No.	Description							
External Th	External Thread, Self-standing, Round-bottom							
430659	2 mL cryogenic vial							
8671	2 mL cryogenic vial, 1D and 2D bar coded							
8676	2 mL cryogenic vial, 1D bar coded							
Internal Thi	read, Self-standing, Round-bottom							
430488	2 mL cryogenic vial							
8670	2 mL cryogenic vial, 1D and 2D bar coded							
8672	2 mL cryogenic vial, 1D bar coded							

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.

2. Choose a Corning CoolRack:

Corning CoolRack Cat. No.	Number of Wells
432049	15
432050	24, SBS-compatible
432051	45
432052	30
432056	96 (no Corning consumables to go with 0.5 mL 2D tubes)
432057	96 (no Corning consumbales to go with 1.4 mL 2D tubes)



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

Ice-free Corning CoolBox					Ice Buckets and Pans						
		Incan	Married .						1		
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	1L Ice Pan	4L Round bucket with lid	2.5L Round bucket with lid
CoolRack Cat. No.	Rack Number of Corning CoolRacks				Number of Corning CoolRacks that can be accommodated						
432049	1	1	4		9	9	3	3	1	2	2
432050	1	1	2		5	5	2	2	-	1	1
432051	-	-	1		3	3	1	1	-	1	1
432052	1	-	1		4	4	2	2	_	1	1
432056	1	1	2		5	5	2	2	_	1	1
432057	1	1	2		5	5	2	2	-	1	1



5 mL Cryogenic Vials

1. Choose a consumable:

Cat. No.	Description
430663	5 mL cryogenic vial, round bottom, external thread,self-standing
430656	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.

2. Choose a Corning CoolRack:

Corning CoolRack		
Cat. No.	Number of Wells	SBS Compatible
432067	9	No



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

Ice-free Corning CoolBox			Ice Buckets and Pans						
	Jacob De Santit								
	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.	k Number of Corning CoolRacks			Number of C	orning CoolRa	cks that can be acc	commodated		
432067	1 1 2 Requires XT or 2XT extension 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	432121	432119	432118	432120	432116	432115	432117
Midi 4L ice pan	31.1 x 22.2 x 11.4 cm	432109	432107	432106	432108	432104	432103	432105
Midi 4L ice pan with lid	35.0 x 22.5 x 11.4 cm	432114	432112	432111	432113	432110	_	_
Maxi 9L ice pan	40.6 x 31.8 x 11.4 cm	432099	432097	432096	432098	432094	432093	432095
Maxi 9L ice pan with lid	44.5 x 32.5 x 11.4 cm	432102	432101	_	_	432100	_	_
Round 2.5L ice bucket with lid	Top diameter: 24.1 cm Height: 12.1 cm	432135	432133	432132	432134	432129	432130	432131
Round 4L ice bucket with Lid	Top diameter: 26.0 cm Height: 18.4 cm	432128	432126	432125	432127	432123	432122	432124

Corning® CoolBox™ XT Modules

Cat. No.	Description	Contains	Qty/Cs
432021	CoolBox XT, purple	Holder and one Cooling Core	1
432022	CoolBox XT, green	Holder and one Cooling Core	1
432023	CoolBox XT, orange	Holder and one Cooling Core	1
432024	CoolBox XT, pink	Holder and one Cooling Core	1
432025	CoolBox 2XT, purple	Holder and two Cooling Cores	1
432026	CoolBox 2XT, green	Holder and two Cooling Cores	1
432027	CoolBox 2XT, orange	Holder and two Cooling Cores	1
432028	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
432081	XT Cooling core	1	1	2
432082	XT Freezing core	1	1	2
432083	Extension collar for CoolBox XT, purple	_	1	_
432084	Extension collar for CoolBox XT, green	_	1	_
432085	Extension collar for CoolBox XT, orange	_	1	_
432086	Extension collar for CoolBox XT, pink	_	1	_
432087	Extension collar for CoolBox 2XT, purple	_	_	1
432088	Extension collar for CoolBox 2XT, green	_	_	1
432089	Extension collar for CoolBox 2XT, orange	-	_	1
432090	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
432070	CoolSink LX55	1	1	2
432071	CoolSink XT96F	1	1	2
432072	CoolSink LV	-	-	1

Ordering Information (Continued)

Corning® CoolRack® M – Microcentrifuge Tube Modules

Cat. No.		ThermalTray					
	Description	ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075			
432034	CoolRack M6, gray	12	12	12			
432035	CoolRack M6, green	12	12	12			
432036	CoolRack M6, orange	12	12	12			
432037	CoolRack M15, gray	4	4	4			
432038	CoolRack M15, green	4	4	4			
432039	CoolRack M15, orange	4	4	4			
432040	CoolRack XT M24	3	3	3			
432041	CoolRack M30, gray	2	2	2			
432042	CoolRack M30, green	2	2	2			
432043	CoolRack M30, orange	2	2	2			
432044	CoolRack M90	1	1	1			
432045	CoolRack M96 ID	1	1	1			

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

Cat. No.	Description	ThermalTray		
		ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075
432046	CoolRack 500 μL M30-PF	2	2	2
432047	CoolRack M15-PF	4	4	4
432048	CoolRack M30-PF	2	2	2

Corning CoolRack CF – Cryogenic Vial and FACS Tube Modules

Cat. No.	Description	ThermalTray		
		ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075
432049	CoolRack CF15	4	4	4
432050	CoolRack XT CFT24	3	3	3
432051	CoolRack CF45	1	1	1
432052	CoolRack CFT30	2	2	2

Corning CoolRack PCR – PCR Tube and Plate Modules

Cat. No.	Description	ThermalTray		
		ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075
432053	CoolRack XT PCR96	3	3	3
432054	CoolRack XT M-PCR	3	3	3
432055	CoolRack XT PCR384	3	3	3

Corning CoolRack - Tall Tube Modules

Cat. No.	Description	ThermalTray		
		ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075
432060	CoolRack XT 5mL	3	3	3
432061	CoolRack 15 mL	3	3	3
432062	CoolRack 50 mL	3	3	3
432063	CoolRack 250 mL-PF	3	3	3
432064	CoolRack 250 mL-B	3	3	3
432068	CoolRack L	3	3	3
432064	CoolRack 250 mL-B	3 3 3	3 3 3	

Ordering Information (Continued)

Corning® CoolSink® Plate and Reservoir Modules

	Description	ThermalTray		
Cat. No.		ThermalTray SLP 432073	ThermalTray LP 432074	ThermalTray HP 432075
432070 CoolSink LX55		3	3	3
432071 CoolSink XT96F		3	3	3
432072 CoolSink 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.



www.corning.com/lifesciences/solutions

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.

CORNING

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