

Corning® XT Cooling Core & XT Freezing Core

Instructions for Use

Overview

The patent-pending dual-phase XT Cooling Core and XT Freezing Core provides the cooling source in the CoolBox™ XT, CoolBox™ 2XT and XT Starter ice-free cooling systems. The XT Cooling Core can maintain sample temperature from 0.5 to 4°C for over 16 hours; the XT Freezing Core can maintain frozen samples for over 8 hours.

Cooling Duration

Working Temperature Range	Cooling Source	Temperature Duration CoolBox XT Open Lid	Temperature Duration CoolBox XT Closed Lid
0.5 to 4°C	XT Cooling Core	Over 10 hours	Over 16 hours
-20 to 0°C	XT Freezing Core	Over 5 hours	Over 8 hours

Cooling duration for the XT Cooling Core and XT Freezing Core were determined using a CoolRack® XT M24 loaded with 24 2.0 mL microcentrifuge tubes filled with 1.5 mL water in a CoolBox XT system. Actual performance may vary depending upon sample module employed, sample load, initial sample temperature, ambient temperature, air currents and other conditions.

XT Cooling Core

Working Temperature Range	Pre-freeze XT Cooling Core	Temperature Duration CoolBox XT Open Lid	Temperature Duration CoolBox XT Closed Lid
0.5 to 4°C	-20°C freezer	Over 10 hours	Over 16 hours

Freeze the XT Cooling Core in a -20°C freezer for at least 12 hours. XT Cooling Core should be stored in -20°C freezer when not in use so it is ready when needed.

Note: Freezing XT Cooling Core for less than the specified time may result in decreased cooling duration.

1. Remove XT Cooling Core from the freezer and place on the bench top for approximately 10 minutes. When the temperature indicator displays 1°C, the XT Cooling Core is ready to use. **Attention! Failure to allow XT Cooling Core to warm up to 1°C may result in sample freezing.**
2. Place XT Cooling Core into CoolBox XT base, CoolBox 2XT base, or XT Starter base and assemble system as specified.
- 3a. If CoolRack® or CoolSink® tube or plate module has been pre-chilled, simply place onto XT Cooling Core and proceed to step 4.
- 3b. If CoolRack or CoolSink module is at room temperature, place onto XT Cooling Core and allow to equilibrate to 4°C (approximately 8 minutes) before proceeding to step 4.
4. Load samples.
5. Place lid on CoolBox XT or CoolBox 2XT system when not processing samples to maximize cooling duration.

XT Freezing Core

Working Temperature Range	Pre-freeze XT Freezing Core	Temperature Duration Open Lid	Temperature Duration Closed Lid
-20° to 0°C	-20°C freezer	Over 5 hours	Over 8 hours
-80° to 0°C	-80°C freezer	Over 8 hours	Over 12 hours

Place XT Freezing Core in a -20°C freezer (12 hours) or in a -80°C freezer (6 hours) and freeze completely. XT Freezing Core should be stored in a -20°C or -80°C freezer when not in use so it is ready when needed.

Note: Freezing XT Freezing Core for less than the specified time may result in decreased cooling duration.

1. Remove XT Freezing Core from the freezer and place into CoolBox XT base, CoolBox 2XT base, or XT Starter base and assemble system as specified.
- 2a. If CoolRack® or CoolSink® tube or plate module has been pre-frozen, simply place onto XT Freezing Core and proceed to step 3.
- 2b. If CoolRack or CoolSink module is at room temperature, place onto XT Freezing Core and allow to equilibrate to < 0°C (approximately 10 minutes) before proceeding to step 3.
3. Load samples.
4. Place lid on CoolBox XT or CoolBox 2XT system when not processing samples to maximize cooling duration.

Reorder Information

Item No.	Description	Intended Use
432081	XT Cooling Core	Cooling cartridge (0.5° to 4°C) For CoolBox XT, CoolBox 2XT, or XT Starter Systems
432082	XT Freezing Core	Freezing cartridge (-20° to 0°C or -80° to 0°C) For CoolBox XT, CoolBox 2XT, or XT Starter Systems

Care and Cleaning

XT Cooling Core and XT Freezing Core are compatible with repeated and prolonged low temperature exposure and can be cleaned with aqueous detergents, alcohol, and acid/base viricide (such as Virkon S) solutions. Rinse with clear water after using cleaning solutions. Do not autoclave.

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