Celsius® CFT: Safeguarding Your Drug Substances in Controlled-rate Freeze & Thaw Manufacturing

- Maximum Product Security
- Excellent Process Reliability
- Creates Process Flexibility
- Scalable

Celsius® FT100 System

turning science into solutions
Celsius® CFT is a platform technology for controlled-rate freezing and thawing of biopharmaceutical products.

Celsius® CFT features Celsius®-Paks that are pre-sterilized single-use bags made from 360-micron S71 film purposely engineered to fit into reusable structural frames. Celsius® CFT defeats cryo-concentration during freeze and thaw cycles.

Celsius® CFT processes up to 100 L of product per cycle, and offers well-qualified shipping solutions for transferring the frozen drug substances around the world.

Maximum Product Security

Proven Bag, Robust Frame
Celsius®-Paks are secured in structural frames for robust handling – even at low temperatures – as proven through extensive functional qualifications.

Optimized Logistics
Control of the entire process logistics from filling to dispensing, including frozen transport, to easily and safely manage large frozen volumes.

Stabilize Drug Substance
Fast, reproducible thermal cycling preserves product stability and mitigates the major adverse effects of large-scale freezing and thawing of biologics.

Excellent Process Reliability

One Supplier

Pre-Qualified Shippers
Mechanical robustness assured by ASTM D4169 AL1. Thermal performance ensures <-40°C for more than 72 hours against ISTA 7D Extreme Summer profile.

Excellent Reproducibility
Reproducible freeze and thaw cycles from Celsius®-Pak to Celsius®-Pak, from batch to batch and from F-T module to F-T module.

Creates Process Flexibility

Improves Production Management
Decouple process steps, extend product shelf-life, stockpile and enable batch processing.

Efficient Transfers
Easy transfer between DS & DP sites, facilitate management of multi-product facilities, leverage benchtop data for production scale-up. Same system for the same performances everywhere.

Optimizes Freeze and Thaw Operations
Reduce overall process time with fast freeze and thaw processes (5 hours to freeze 100 L of product down to -60°C, everytime).

Scalable

Benchtop to Production
Quickly and easily verify product compatibility with 30 mL product in the Celsius® S3 Benchtop System

Flexibility within the Platform
All Celsius®-Paks (30 mL through 16.6 L) have the same film, materials and quality metrics. The production-scale F-T Module is modular from 33 L to 100 L to grow with your process.

Consistent Film
All Celsius® products are built from 360 micron S71 film for easy scale-up from Celsius® FFT to CFT. Film stability development transfers between Celsius® platforms to save time and money.