

Life Sciences Technology Center

Your gateway to cutting-edge freeze/thaw technology and support

Entegris' technology center has everything needed to make educated decisions about what freezing process and products best fit your needs.

Our expertise in freeze/thaw provides a solution that protects valuable product while maintaining the lowest cost of ownership. We help improve the way you freeze, transport, and thaw your high-value products. We can either update an existing process or create the best new process that gets the results you need. Only at Entegris will you find all these tools and technologies in one place to enable you to make the right choices to optimize your project.

FULL SYSTEM SOLUTIONS FOR FREEZE/THAW PROCESSES

First, starting with an Aramus[™] bag assembly – the most flexible and robust assembly across bulk drug substance (BDS) and cryogenic applications – Entegris can configure a full system solution that emphasizes your main value drivers.

Then we guide you through potential areas of concern:

- product loss
- cost of ownership
- security of supply
- security of product
- freeze consistency
- solution purity with low particulate contamination
- latest technologies and validation speed

Entegris has successfully helped customers alleviate all these concerns. Find out for yourself how Entegris' Life Sciences Technology Center can help you achieve your freeze/thaw process improvement goals.



WHY VISIT OUR TECHNOLOGY CENTER?

- Informative/instructional visit
 - For those new to freeze/thaw or not familiar with the ecosystem
- Development showcase visits for engineers or product development
 - Showcase upcoming product development, and inform design iteration

- Freezer demonstrations
 - For those new to freeze/thaw or not familiar with the ecosystem
- Qualification support
 - Too busy to validate? We can create a robust protocol for sign off and we execute
- Customer solution configuration meeting
 - Tailoring a solution for the specific problem statement
- Virtual visits
 - There are webcams and monitors installed in the tech center for virtual walkthroughs



EXAMPLE STUDIES

- 1. Define and understand the distribution modes and freeze/thaw equipment infrastructure/path
- 2. Container solution design (bag/shell/shipper)
- 3. Custom bag chamber design validation
- 4. Freeze study
- 5. Freeze/thaw recipe design and verification
- 6. V&Q > ASTM 4169, integrity verification
- 7. E&L and compatibility assessment or services
- 8. Product confirmation (particles, aggregates, titer, etc.)



Corporate Headquarters 129 Concord Road Billerica, MA 01821 USA

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