

Freeze-Pak™ Bio-Containers

For cryogenic storage and transport

- Designed for final product frozen storage, bioprocessing, regenerative medicine, and working and master cell banks.

Benefits

- Tested and validated to -196°C
- Remains pliable in frozen state
- Designed to fit off-the-shelf freezing and storage cassettes
- Suitable for long-term storage of both cell and non-cell-based materials
- Compatible with standard tube welding and sealing devices
- Compatible with industry standard freezing/storage cassettes
- Validation package available



FP-500ML

Standard Applications

- Final product frozen storage
- Bioprocessing
- Regenerative medicine
- Working and master cell banks

Custom Design Service

- Platform for custom offerings via Charter Medical's standard component library

Ordering Information

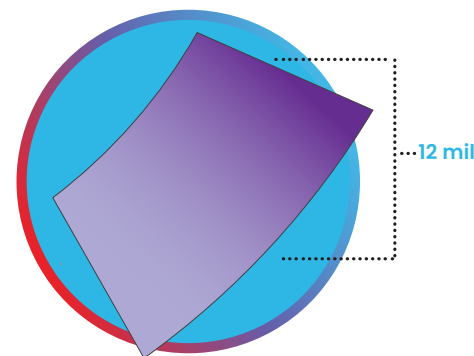
Catalog #	Description	Volume at -196°C	Dimensions	Case Qty
FP-50ML	Freeze-Pak™ 50mL max fill volume, 1 EVA line with 2 PVC leads (4" L ; 0.118" ID x 0.160" OD) and female luer	10 – 30mL	3" (7.6cm) W x 8.4" (21.3cm) L	25
FP-250ML	Freeze-Pak™ 250mL max fill volume, 1 EVA line with 2 PVC leads (4" L ; 0.118" ID x 0.160" OD) and female luers	30 – 70mL	5.1" (13cm) W x 7.3" (18.5cm) L	25
FP-500ML	Freeze-Pak™ 500mL max fill volume, 1 EVA line with 2 PVC leads (4" L ; 0.118" ID x 0.160" OD) and female luers	55 – 100mL	5.1" (13cm) W x 8.9" (22.6cm) L	25
FP-750ML	Freeze-Pak™ 750mL max fill volume, 1 EVA line with 2 PVC leads (4" L ; 0.118" ID x 0.160" OD) and female luers	80 – 190mL	5.1" (13cm) W x 9.9" (25.1cm) L	25

Film Physical Test Data (pre-gamma irradiation)

Property	Test Protocol	Typical Values
Tensile Strength at Break, MD/TD (psi)	ASTM D882	3200/2900
Elongation at Break, MD/TD (%)	ASTM D882	650/700
Modulus at 100% Elongation, MD/TD (psi)	ASTM D882	550/500
Tear Resistance, MD/TD (Lbf/in.)	ASTM D1004	200/250
Low Temp. Brittleness, (Masland)(°C)	ASTM D1790	Below -100°C
Glass Transition Temperature (Tg)	DSC	-48°C
Specific Gravity (g/cm ³)	ASTM D792	0.92
Particulates	USP <788>	Pass
Oxygen Transmission Rate cm ³ /M ² /24 hrs @ 23°C, 0% RH	ASTM D3985	2200
Carbon Dioxide Transmission Rate cm ³ /M ² /24 hrs @ 23°C, 0% RH	ASTM F2476	9000
Moisture Vapor Transmission g/M ² /24 hrs @ 23°C	ASTM F1249	3.9

Final Container Biocompatibility Test Data (post-gamma irradiation)

Property	Test Protocol	Typical Values
USP Class VI	USP <88>	Pass
Cytotoxicity	USP <87>/ISO 10993-5	Pass
Hemolysis	ISO 10993-4	Pass



Single-layer Polyolefin Film
Durable and flexible for ultra-low freezing applications

Educational Resources

For more information on how to effectively implement single-use cryopreservation solutions to optimize your cold chain processes—from prototyping for development to scale-up for commercialization—explore the articles below:

- [How Single-use Cryopreservation Solutions Enable Biopharmaceutical Manufacturing](#)
- [Four Common Types of Cryogenic Studies for Advanced Therapies](#)
- [Selecting The Right Single-Use Materials In Biopharmaceutical Manufacturing](#)
- [Case Study: Leveraging Single-use Solutions to Solve Working Cell Bank Challenges](#)

Contact us today at www.chartermedical.com/contact-us

All data and statements concerning these products may be considered as being indicative of representative properties and characteristics obtainable. We make no warranty, express or implied, concerning actual use or results because of industry-specific influences.