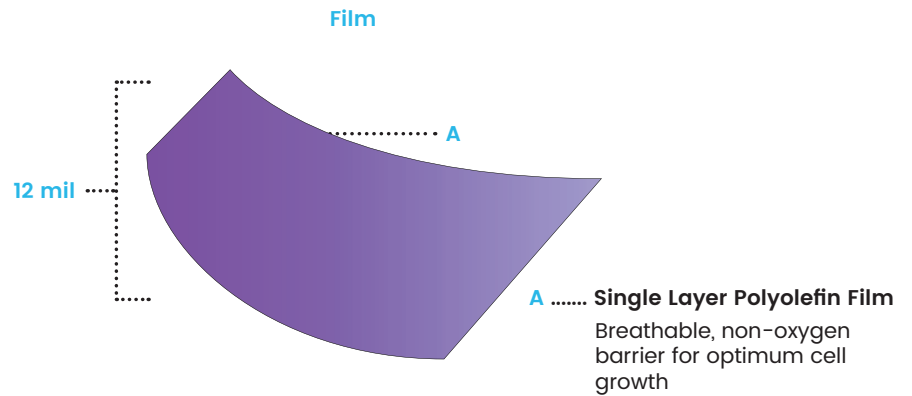




- » Integrated tubing allows for closed system filling, feeding, and sampling
- » Gas permeable film
- » Reusable sampling valve for in-process testing
- » Scalable, user-friendly design
- » Cell expansion observed with multiple cell models



## Ordering Information

### Cell Expansion

- » Validation included expansion of Tumor Infiltrating Lymphocytes (TIL) and Human Th2 Rapa cells
- » Total viable count and total nucleated cell counts evaluated
- » Cell expansion demonstrated for both cell models

### Standard Applications

- » Expansion and culture of non-adherent cells in biotech and biopharma industrial and research applications

Catalog #	Description	Case Qty.
EXP-50	30mL fill volume at 1cm thick cell expansion bag with two leads and female luers, and dockable fill line with sampling valve	24
EXP-500	190mL fill volume at 1cm thick cell expansion bag with two leads and female luers, and dockable fill line with sampling valve	12
EXP-1L	380mL fill volume at 1cm thick cell expansion bag with two leads and female luers, and dockable fill line with sampling valve	12
EXP-3L	630mL fill volume at 1cm thick cell expansion bag with two leads and female luers, and dockable fill line with sampling valve	12
EXP-5L	1250mL fill volume at 1cm thick cell expansion bag with two leads and female luers, and dockable fill line with sampling valve	12



## Recommended Working Volumes

Product	Minimum Starting Volume*	Minimum Starting Cell Volume*	Maximum Expansion Volume*	Maximum Cell Expansion Number*	Volume at 1cm Thickness
EXP-50	10mL	2 x 10 <sup>5</sup> cell/mL	45mL	1.5 x 10 <sup>6</sup> cells/mL	30mL
EXP-500	100mL	2 x 10 <sup>5</sup> cell/mL	350mL	1.5 x 10 <sup>6</sup> cells/mL	190mL
EXP-1L	300mL	2 x 10 <sup>5</sup> cell/mL	700mL	1.5 x 10 <sup>6</sup> cells/mL	380mL
EXP-3L	550mL	2 x 10 <sup>5</sup> cell/mL	2000mL	1.5 x 10 <sup>6</sup> cells/mL	630mL
EXP-5L	1100mL	2 x 10 <sup>5</sup> cell/mL	3500mL	1.5 x 10 <sup>6</sup> cells/mL	1250mL

\*Values are suggested only. Each cell model system is unique and should be optimized for maximum and minimum values

## 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 (T <sub>g</sub> )	DSC	-48°C
Specific Gravity (g/cm <sup>3</sup> )	ASTM D792	0.92
Particulates	USP < 788 >	Pass
Oxygen Transmission Rate cm <sup>3</sup> /M <sup>2</sup> /24 hrs @ 23°C, 0% RH	ASTM D3985	2200
Carbon Dioxide Transmission Rate cm <sup>3</sup> /M <sup>2</sup> /24 hrs @ 23°C, 0% RH	ASTM F2476	9000
Moisture Vapor Transmission g/M <sup>2</sup> /24 hrs @ 23°C	ASTM F1249	3.9

\*Test performed on 0.014" film

## Film Biocompatibility Data (post-gamma irradiation)

Property	Test Protocol	Average Value
USP Class VI	USP < 88 >	Pass
Cytotoxicity	ISO 10993-5	Pass
Hemolysis	ISO 10993-4	Pass



**\*\* EXP-Pak™ is not intended for clinical, diagnostic, or therapeutic uses with humans**

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