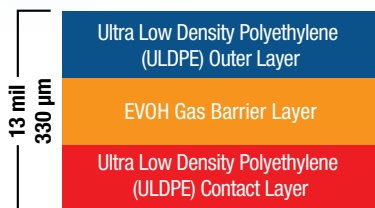


# CLEAR PAK® film

An innovative solution from  
Charter Medical

Charter Medical's Clear-Pak® Bio-Containers are designed for applications in processing, handling, storage and transport of sterile fluids. Clear-Pak® is a single web film in a multi-layer, co-extruded format with an Ultra Low Density Polyethylene (ULDPE) contact layer, EVOH gas barrier layer, and Polyethylene (PE) outer layer. The film offers superior clarity, excellent gas barrier properties and is animal derivative component free. Complete validation package available upon request.



## Physical Test Data (post gamma irradiation\*)

Property	Test Protocol	Average Value
Tensile Strength	ASTM D882	1900 psi
Yield Strength	ASTM D882	1200 psi
Elongation at Break	ASTM D882	460%
Elastic Modulus	ASTM D882	39,000 psi
Tear Resistance	ASTM D1004	5.25 lb
Penetration Resistance	ASTM F1306	4.94 in-lb
O <sub>2</sub> Transmission Rate	ASTM D3985	<0.003mL/100in <sup>2</sup> -day-atm
CO <sub>2</sub> Transmission Rate	ASTM F2476	<0.01mL/100in <sup>2</sup> -day-atm
Moisture Vapor Transmission Rate	ASTM F1249	0.021g/100in <sup>2</sup> -day
Clarity ASTM	D1003	97%
Haze ASTM	D1003	7%
Transmittance	D1003	93%
Operating Range		- 80°C to 50°C

## Biocompatibility Test Data (post gamma irradiation\*)

Property	Test Protocol	Value
USP Class VI	USP <88>	Pass
Cytotoxicity	USP <87>	Pass
Bacterial Endotoxin	USP <85>	Pass
Heavy Metals	USP <661>	Pass
Buffering Capacity	USP <661>	< 1 mL
Non-Volatile Residue (NVR)	USP <661>	< 1 mg
Residue on Ignition	USP <661>	Pass
Appearance	EP <3.1.5>	Pass
Acidity and Alkalinity	EP <3.1.5>	Pass
Absorbance	EP <3.1.5> 0.01	Pass
Reducing Substances	EP <3.1.5> 0.02 mL	Pass
Local Effects After Implantation	ISO 10993-6	Pass
Irritation and Delayed-type Sensitivity	ISO 10993-10	Pass
Systemic Toxicity	ISO 10993-11	Pass
Particulates	USP <788>	Pass

Gamma Irradiation Level: \* Minimum 25 kGy

Bio-Pak® and Clear-Pak® are registered trademarks of Charter Medical, Ltd.

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.



## CharterMedical

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