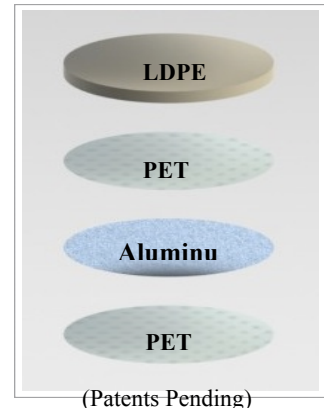


This document is valid for all oxygen ingress rates of VinPerfect[®] Closure System Liners. These liners are intended for wine bottle closure of non-carbonated beverages with and without alcohol, providing contact between an aluminum screwcap and a glass bottle.

The VinPerfect[®] liner is comprised of a three-ply co-extruded liner consisting of a foamed Low Density Polyethylene core sandwiched between two solid layers of Low Density Polyethylene laminated to a three-ply barrier comprised of vacuum deposited aluminum sandwiched between two layers of PET. (Multiple Patents Pending.)



Typical Product Attributes

Construction	Metric	Imperial
Structure	Solid LDPE / Foamed LDPE / Solid LDPE / PET / Vacuum Deposited Aluminum / PET	Solid LDPE / Foamed LDPE / Solid LDPE / PET / Vacuum Deposited Aluminum / PET
Density	0.43 ± 0.03 g / cm ³	27 ± 2 lbs / ft ³
Thickness	2.00 mm	78.7 mil
Thickness Tolerance	± 0.178 mm	± 7 mil
Flatness Tolerance	≤ 3% from diameter	≤ 3% from diameter
Oxygen Ingress Rates	<ul style="list-style-type: none"> • Light: 0.11 ppm O₂ / Year • Medium: 0.21 ppm O₂ / Year • MediumPlus: 0.49 ppm O₂ / Year 	
Use and Storage		
Storage Temperature	5° C up to 35° C	40° F up to 95° F
Use Temperature*	15° C up to 25° C	59° F up to 78° F
<i>Store in odorless, dry and UV-protected environment in closed boxes at constant temperature.</i>		
<i>*Recommend storage at this temperature for 48 hours before processing.</i>		
Regulatory Compliance		
FDA Compliance	<ul style="list-style-type: none"> • 21 CFR 177.1210 (Closures with Sealing Gaskets for Food Containers) • According the information received from our suppliers, liners in direct food contact are made with raw materials that do not contain Bisphenol A (Cas No. 80-05-7) and without the introduction of Bisphenol A during the liner manufacturing process. 	
EU Compliance (Pending)	<ul style="list-style-type: none"> • Regulation (EU) No. 10/2011 on plastic materials and articles intended to come into contact with food. VinPerfect liners currently use blowing agents that meet the specific European Regulatory requirements. 	

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