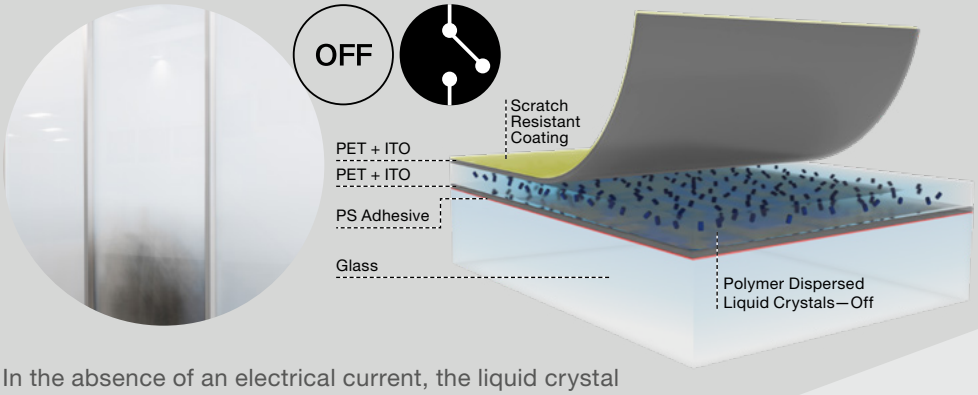
Transform spaces on demand

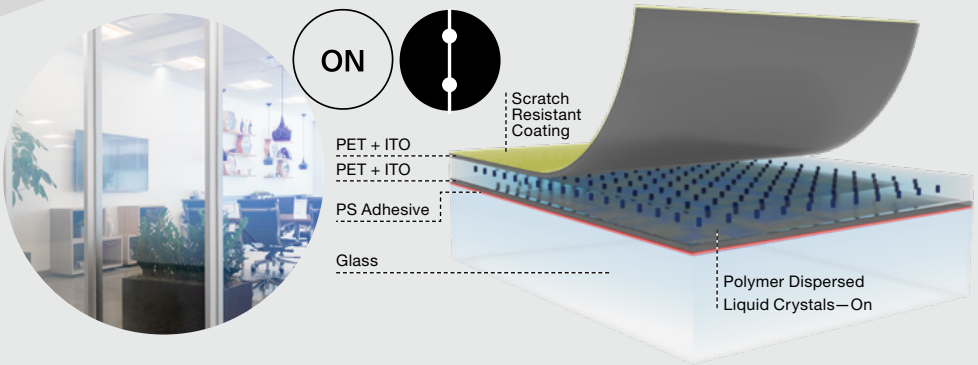
Avery Dennison Vela™ is a retrofit window film that places a thin translucent film over indoor glass panes allowing for privacy, consumer engagement and erasable whiteboard applications. When switched-on, Vela™ film transforms to transparent, providing high optical clarity and visually opening up spaces. Vela™ delivers easy to operate, flexible functionality on demand.

How does it work?

The Vela™ film is designed with a Pressure Sensitive “PS” adhesive on one side for a wet application and a Scratch Resistant “SR” Coating on the other side to ensure scratch-free installation and maintenance. Inside the film structure are two optically clear, sputtered transparent conductive layers of Indium Tin Oxide, “ITO” and in between these layers are the Polymer Dispersed Liquid Crystals, “PDLC” which is the basis for the technology.



In the absence of an electrical current, the liquid crystal particles disperse randomly, scattering light which results in a translucent appearance.



Activating the Vela™ film introduces electricity to the film which causes the liquid crystal particles to orient in a manner that permits light to traverse the film and results in a transparent state.

AVERY DENNISON

These illustrations have been simulated and are not actual product comparisons

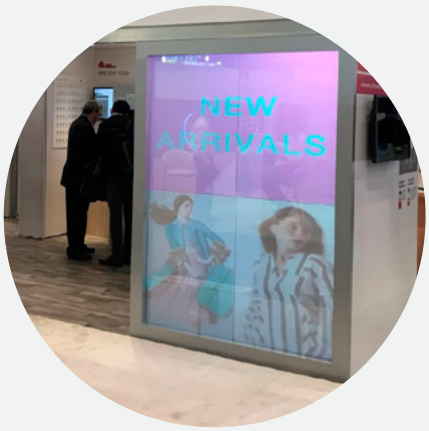
Specifications

Parameter	Value	
	OFF	**ON**
Appearance	Translucent	Clear
Parallel Visible Light Transmittance	3%	78%
Total Visible Light Transmittance	65%	81%
Haze	>99%	3%
Switching Time	OFF ▶ ON 10 msec	ON ▶ OFF 150 msec
Operating Modes	ON/OFF, Dimmer	
Operating Voltage	70 VAC sq wave	
Operating Frequency	25-30, 32, 50-60 Hz	
Power Consumption	2-4 W/m^2	
Film Thickness	275 micron (10mil)	
SR hardcoat Taber Abrasion Resistance (ASTM D1044)	ΔHaze < 2%	
PS adhesion strength	600-800 gr/in	
Operating Temperatures	14°F - 158°F (-10°C- 70°C)	

*Width availability – 1.25m (49”). Wider version in development.

Privacy

Consumer Engagement



To learn more about how the Vela™ Dynamic Display System can be ideal for your business or receive an installation estimate, please contact:
vela@eu.averydennison.com