

# HIGH SECURITY PERFORMANCE

LEXAN™ SD POLYCARBONATE FILM MATERIALS  
FOR SECURITY DOCUMENTS



**LEXAN™ FILM**

**POLYVANTIS**



# LEADING-EDGE MATERIALS FOR IDENTIFICATION CARDS

With over a decade of proven experience, POLYVANTIS offers a full portfolio of high-performance polycarbonate (PC) LEXAN™ SD Films specially developed for easy manufacturing of complex secure ID cards.

LEXAN Secure ID film portfolio include a lasermarkable grade, a bright white, opaque grade and a clear grade. These films offer tight gauge tolerances to simplify manufacture of cards within mandated thickness parameters. They also provide high performance and exceptional durability.

Additional to the standard layers, we also offer LEXAN™ SDCX co-extruded films and LEXAN™ SC8A12E/SC8A92E flexible hardcoated films. These products directly address accelerating industry trends calling for more and thinner card layers to accommodate additional, enhanced safety features and provide easy processing and enhanced durability for ID cards and other security documents.

## FEATURES AND POTENTIAL BENEFITS

- High temperature resistance
- Low and controlled shrinkage for improved flatness before and after printing and lamination
- Surface textures optimized for printing, hot stamping and lamination
- Tight gauge tolerance for controlled stack tolerance after lamination
- High optical quality films, manufactured in a clean room environment
- Maximized opacity in white layer to enhanced ability to hide embedded security devices at thin gauges
- High contrast laser markability of the clear laser markable film

## POTENTIAL APPLICATIONS

- ID cards
- Drivers licenses
- (E-)passport data pages
- Border crossing cards
- Residency permits
- Green cards
- Military and police ID
- Smart cards inlays
- Tachometer cards
- Healthcare cards
- Government employees ID





# LASER MARKING

Identity theft, counterfeiting and other serious threats call for constant vigilance and innovation in ID card design. As more security features are incorporated into the latest ID cards and governmental documents, the individual card layers and the manufacturing process become more complex and challenging.





Smart card, passport and e-ID manufacturers will be able to integrate next level security features using a patented UV lasertechnology thanks to a new polycarbonate (PC) based LEXAN™ SD14UV film overlay from POLYVANTIS. The demand for more sophisticated solutions to protect government ID cards and other related documents has led POLYVANTIS to pioneer the development of a PC material technology that enables customers to apply a ghost image onto the card or document and create a tactile white marking which will fluoresce under UV light, all during the personalization phase.

# MATERIALS SPECIALLY DESIGNED FOR CONSISTENT HIGH QUALITY

## LEXAN™ SD8B14 FILM

Clear polycarbonate film that delivers improved durability and temperature resistance over other materials.

LEXAN™ SD8B14 FILMS			
	Gauge	Length	Weight
2 sides textured	µm	m	kg
<i>Texture:</i>	30	1940	85
<i>fine velvet / fine matte</i>	50	1940	142
<i>Width: 1220 / 1270 mm</i>	75	1290	142
<i>Color: 112 ( transparent )</i>	100	970	142
<i>Gauge Range: 30 - 600 µm</i>	125	640	117
<i>MOQ: 1 pallet</i>	150	640	140
	175	457	117
	200	400	117
	250	327	120
	300	320	140
	375	228	125
	400	228	133

## LEXAN SD8B24 FILM

Opaque white polycarbonate film with excellent opacity designed to hide embedded security devices at thin gauge.

LEXAN™ SD8B24 FILMS			
	Gauge	Length	Weight
2 sides textured	µm	m	kg
<i>Texture:</i>	50	1940	158
<i>fine velvet / fine matte</i>	75	1290	158
<i>Width: 1220 / 1270 mm</i>	100	970	158
<i>Color: WH9B246</i>	105	900	154
<i>(opaque white)</i>	110	875	157
<i>Gauge Range: 30 - 400 µm</i>	125	640	131
<i>MOQ: 1 pallet</i>	150	640	156
	175	457	131
	200	400	131
	220	400	144
	250	327	133
	300	320	157
	400	228	149

LEXAN™ SD8B24H FILMS			
	Gauge	Length	Weight
2 sides textured	µm	m	kg
<i>Texture:</i>	50	1940	171
<i>fine velvet / fine matte</i>	75	1290	171
<i>Width: 1220 / 1270 mm</i>	100	970	171
<i>Color: 8G9A4499 (high</i>			
<i>opaque white)</i>			
<i>Gauge Range: 50 - 100 µm</i>			
<i>MOQ: 1 pallet</i>			



## LEXAN SD8B94 FILM

Clear lasermarkable polycarbonate film that can be used as the top or intermediate layer to provide grayscale graphics and precise images for high security personalization.

LEXAN™ SD8B94 FILMS			
	Gauge	Length	Weight
2 sides textured	µm	m	kg
Texture:	30	1940	85
<i>fine velvet / fine matte</i>	50	1940	142
Width: 1220 / 1270 mm	75	1290	142
Color: NA9D070T	100	970	142
(clear lasermarkable)	125	640	117
Gauge Range: 30 - 620 µm	150	640	140
MOQ: 1 pallet			

## LEXAN SD8A12 FILM

Clear polycarbonate films with high polished surface

LEXAN™ SD8A12 FILMS			
	Gauge	Length	Weight
1 side textured	µm	m	kg
Texture: <i>polish/fine matte</i>	50	1940	142
Width: 1220 / 1270 mm	100	970	142
Color: 112			
MOQ: 1 pallet			

## LEXAN SD8A92 FILM

Clear lasermarkable film with high polished surface.

LEXAN™ SD8A92 FILMS			
	Gauge	Length	Weight
1 side textured	µm	m	kg
Texture: <i>polish / fine matte</i>	50	1940	142
Width: 1220 / 1270 mm	100	970	142
Color: 112			
MOQ: 1 pallet			

## LEXAN SDCX CO-EXTRUDED FILM

Combines a core layer of white opaque or transparent LEXAN film with a clear, lasermarkable cap layer to avoid the challenges of handling separate thin film layers, offering easy processing.

LEXAN™ SDCX FILMS			
	Gauge	Length	Weight
2 sides textured	µm	m	kg
Texture: <i>fine matte / fine matte</i>	150	640	149
Width: 1220 / 1270 mm			
Color: 112/WH9B246			
MOQ: 1 pallet			

## LEXAN SC8A12E FILM

Clear anti-scratch coated film that surpasses standard PC film in durability, including scratch and chemical resistance, helping to extend useful life of the card.

LEXAN™ SC8A12E FILMS			
	Gauge	Length	Weight
1 side textured hard-coated clear	µm	m	kg
Texture: <i>polished / fine matte</i>	75	838	92
Width: 1220 mm	105	838	129
Color: 112			
MOQ: 1 pallet			

## LEXAN SC8A92E FILM

Clear lasermarkable anti-scratch coated film that surpasses standard PC film in durability, including scratch and chemical resistance, helping to extend useful life of the card.

LEXAN™ SC8A92E FILMS			
	Gauge	Length	Weight
1 side textured hard coated clear lasermarkable	µm	m	kg
Texture: <i>polished / fine matte</i>	75	838	92
Width: 1220 mm	105	838	129
Color: NA9D070T			
MOQ: 1 pallet			

## LEXAN SD14UV FILM

Clear UV-lasermarkable polycarbonate film that allows card manufacturers to introduce new security elements into the card during personalization.

LEXAN™ SD14UV FILMS			
	Gauge	Length	Weight
2 sides textured clear lasermarkable	µm	m	kg
Texture: <i>fine velvet / fine matte</i>	50	1940	142
Width: 1220 / 1270 mm	100	970	142
Color: 11204			
MOQ: 1 pallet			

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**LEXAN™** Tough,  
Virtually  
Unbreakable  
POLYCARBONATE FILM & SHEET