



PREMIUM GLASS WINDOW FILM SINCE 1983

Product Brochure



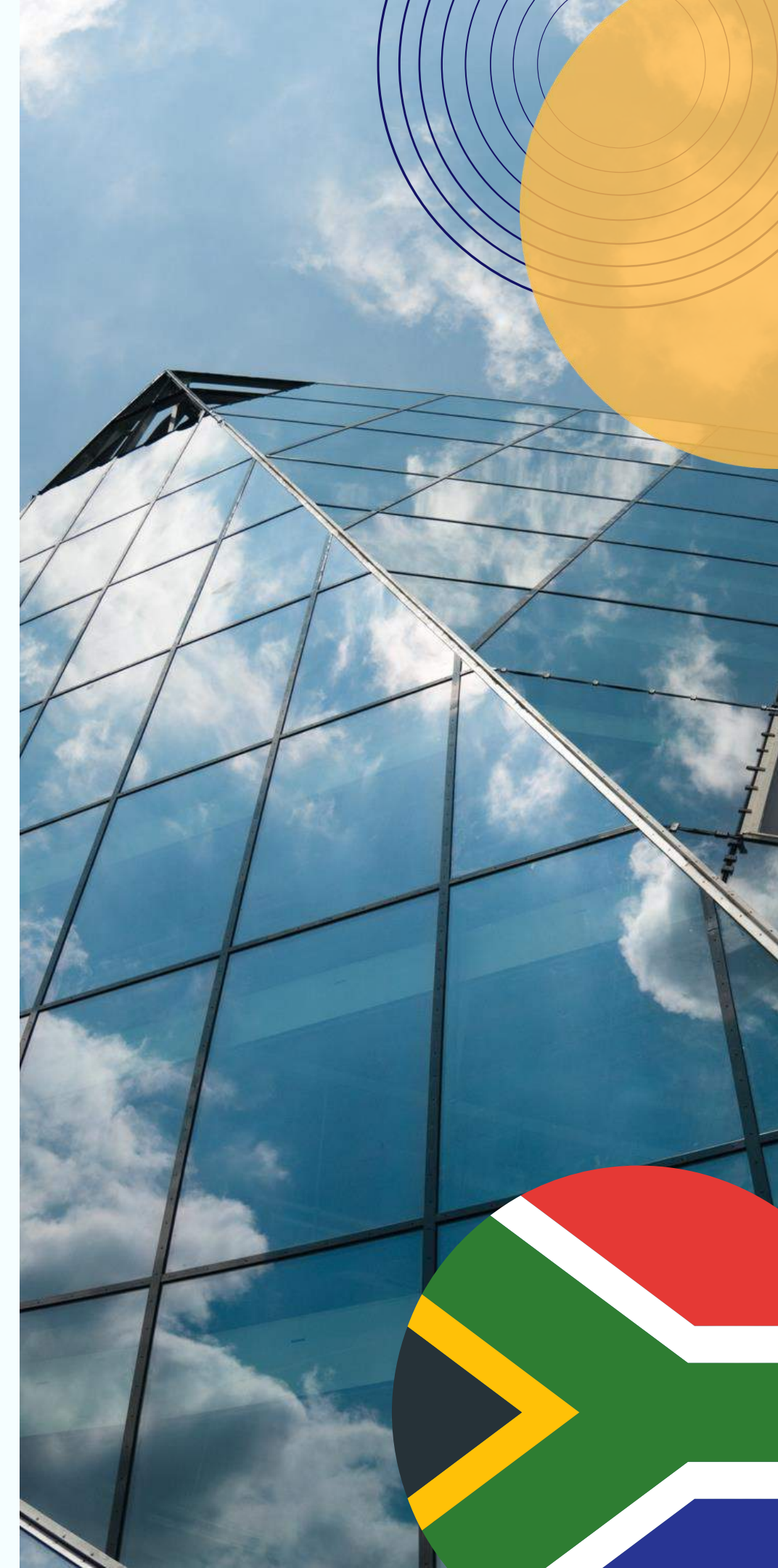
Who we are:

WHAT SETS US APART FROM THE COMPETITION?

With over 35 years in the industry, Solasafe is a leading supplier and installer of high-quality window films for all automotive and architectural tinting needs. We are customer focused and quality driven.

Our films are tried and tested to ensure the highest quality at competitive prices.

We are proud to supply over 50 types of film to over 120 agents across South Africa and beyond.





PRODUCT LIST CONTENTS

Automotive Films

Smash and Grab Films (Xenon Nano-Ceramic)

Safety Films

Paint Protection Films

Nano-Ceramic (Windscreen)

Architectural Films

Reflective, Semi and Non-reflective Films

Solar Control & Nano Ceramic Films

Privacy Films

Decorative Films

Safety Films



HIGH-QUALITY VEHICLE FILMS

Automotive Films





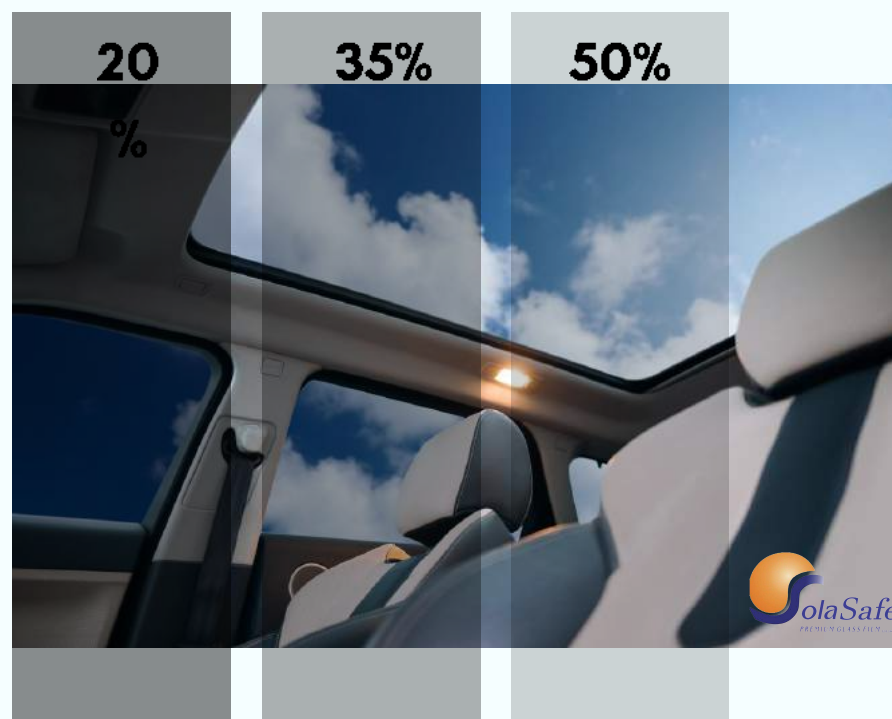
PROTECT VEHICLE WINDOWS

Smash & Grab Films



SMASH & GRAB

Xenon is Solasafes' signature nano-ceramic safety film used as Smash & Grab film for vehicles. Our Smash & Grab films are infused with Nano-ceramic materials that give added IR protection and are made from stronger polyester. A heavier adhesive with a higher solidity contact and higher bonding strength makes these films forgiving and easy to mould. The films have a natural appearance and are long lasting under long periods of sun exposure. Our safety films have a low haze value.



Ply	1	Gauge	120/150 Mic	Guarantee	7yrs	
Properties						
Tensile	Peel	SCR	Break	Elongation	Melting	Haze
1700 kg/cm	984 g/cm	3	96lbs/in	160%	260c	0.69 – 0.83

Specifications			
Properties	Xenon 20	Xenon 35	Xenon 50
Visible light Transmittance	18	34	50
Visible light Reflectance	11	11.9	9,8
Optical Density (absorbance)	0,75	0,4	0,32
Solar Heat Gain coefficient			
TSER	54	42	33
IR Rejection 950nm	56	42	32
IR Rejection 1400nm			
UV Rejection	99	99	99



Protect your family!



Prevent opportunistic crime!



Stop flying glass



Block up to 99% of sun's harmful UV rays



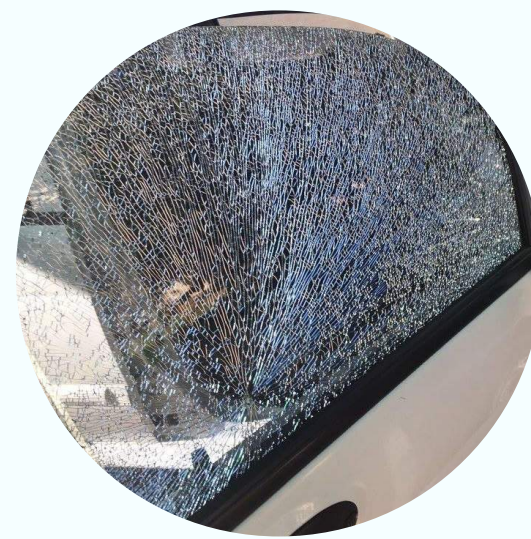
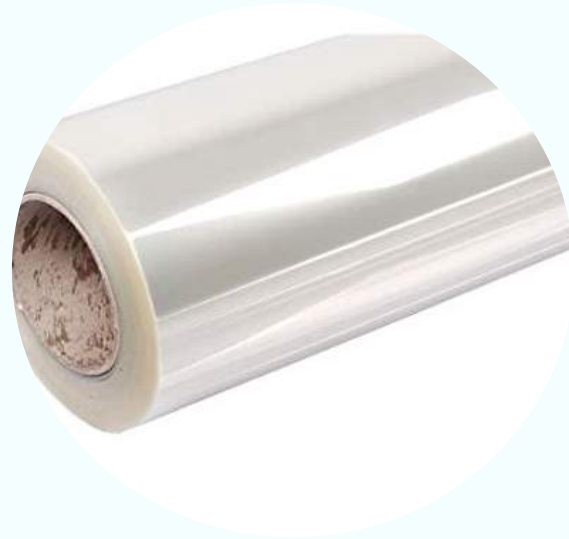
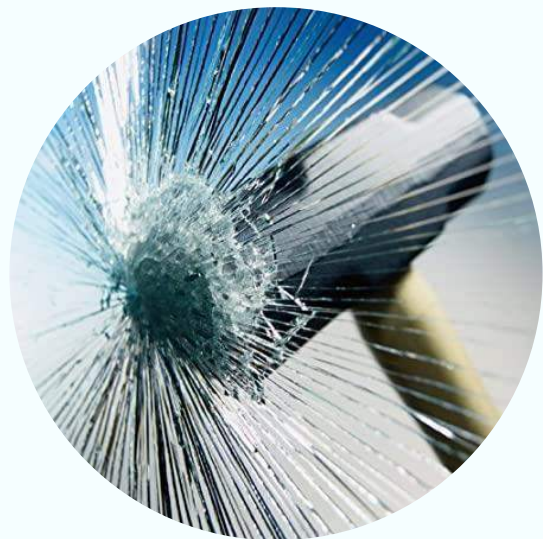
REINFORCE VEHICLE GLASS

Safety Films



SAFETY FILM

Solasafe safety films use thicker polyester film and have extra adhesive without compromising the haze value. The safety films are laminated for added strength. The adhesives are stronger than used on other films and has high solidity and high bonding strength. The films are infused with UV inhibitors giving excellent durability once fitted.



Ply	1/2/3	Gauge	Varies	Guarantee	7 years	
Properties						
Tensile	Peel	SCR	Break	Elongation	Melting	Haze
1700 kg/cm	984 g/cm	2	56lbs/in	160%	260c - 265c	0,94

Specifications			
Properties	100 Micron	200 Micron	300 Micron
Solar Transmittance %	80,5	74,9	74,9
Visible light Reflectance %	7,4	11,4	11,7
Solar Absorbance %	12,1	13,7	14,1
Solar Heat Rejection %	8	17,5	17,8
UV Rejection %	99	99	99



Reinforce glass windows



Protect your family!



Prevent opportunistic crime!



Stop flying glass



PROTECT YOUR ASSET

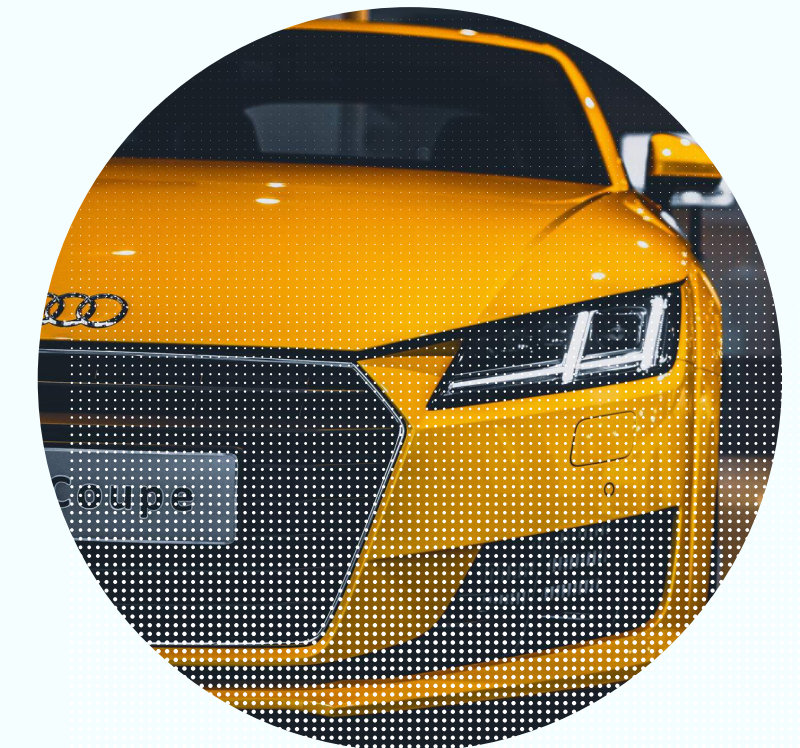
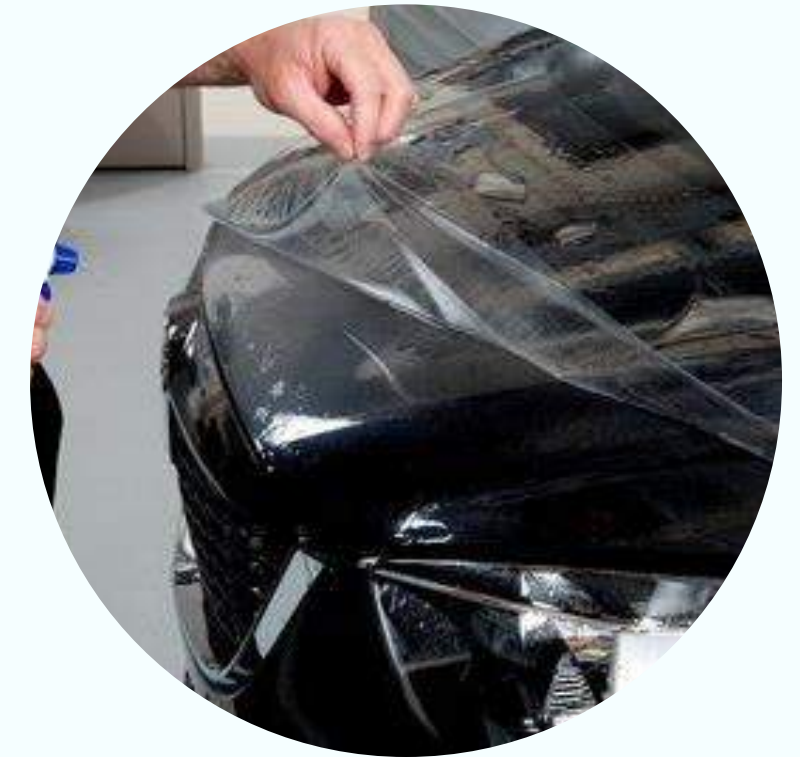
Paint Protection Films



PAINT PROTECTION FILM

Solasafe is a national supplier of 3 different types of PPF (TPH & TPU)
Our films are quality tested to meet global standards and provide the following benefits:

- **Clear high-performance protective layer**
- **Protects against scratches & nicks from rocks, salt and other elements.**
- **Protects against tree sap & bird droppings**
- **Protects against UV rays**
- **Self-healing**
- **Provides stain resistance**
- **Keeps your car looking newer for longer by defending it from damage**



AGATE- TPH

The Agate film is constructed from the most modern TPH with excellent installation results with medium non-yellowing properties.

TPH is a modified Polyvinyl Chloride with high durability. The film is more rigid than TPU and may require more heat to conform to extreme shapes.

TPH and PVC have been used in Paint Protection Films for decades. TPH technology has improved over time and its major advantage over TPU is cost.

Type	Gauge	Guarantee
PET High Glossy 50u Protective	8ml	3 years

AGATE

Repair Type	Heat Repair
Self-healing	More than 95% at 70 °C within 5 secs
Scratch Resistant	750g force 40 laps (no scratching)
Adhesive	Ashland (USA)
Backing Material	High Polymer TPH
Tensile Property	Excellent elongation and anti-collision
Coating Thickness	13u
Coating Technique Support	Japan
Hydrophobic Property	Drop angle >107
Rain Stain Resistance	No visible stains



TELKITE- TPU

Telkite Paint Protection Film is a non-yellowing TPU premium film.

TPU (Thermoplastic Polyurethane) films are flexible with high elongation and excellent dynamic flex performance. TPU films are abrasive resistant and have excellent tear strength. It is environmentally friendly, self-healing, grease and weather resistant.

TPU keeps vehicle surfaces attractive through exceptional durability, enduring impact strength and elasticity while protecting against environmental exposures.

With its low-temperature flexibility, Telkite TPU conforms easily to complex shapes and surfaces, and it's easy to remove without breaking or tearing.

Type	Gauge	Guarantee
TPU High Glossy 50u Protective	8ml	8 years

TELKITE

Repair Type	Heat Repair
Self-healing	More than 97% at 70 °C Within 5 secs
Scratch Resistant	750g force 40 laps (no scratching)
Adhesive	Ashland (USA)
Backing Material	Yellow Resistance TPU
Tensile Property	Excellent elongation and anti-collision
Coating Thickness	13u
Coating Technique Support	Japan
Hydrophobic Property	Drop angle >103
Rain Stain Resistance	No visible stains



TOPAZ- TPU

Topaz Paint Protection Film is a non-yellowing TPU premium film. Topaz is our top of the range film, tested for superb performance and longevity.

TPU (Thermoplastic Polyurethane) films are flexible with high elongation and excellent dynamic flex performance. TPU films are abrasive resistant and have excellent tear strength. It is environmentally friendly, self-healing, grease and weather resistant.

TPU keeps vehicle surfaces attractive through exceptional durability, enduring impact strength and elasticity while protecting against environmental exposures.

With its low-temperature flexibility, Topaz TPU conforms easily to complex shapes and surfaces, and it's easy to remove without breaking or tearing.

Type	Gauge	Guarantee
TPU High Glossy 50u Protective	8ml / 10ml	8 years

TOPAZ

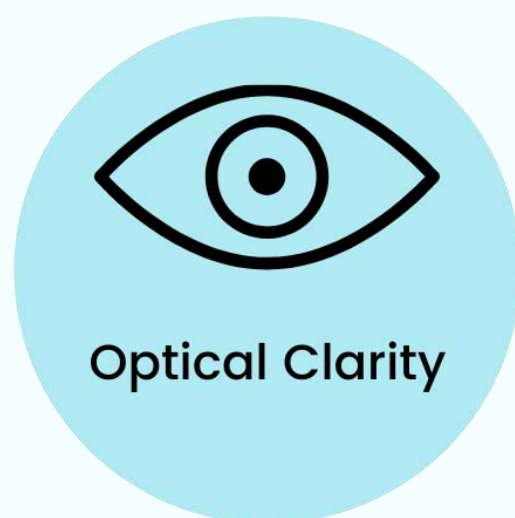
Repair Type	Heat Repair
Self-healing	More than 97% at 70 °C Within 5 secs
Scratch Resistant	750g force 40 laps (no scratching)
Adhesive	Ashland (USA)
Backing Material	Yellow Resistance TPU
Tensile Property	Excellent elongation and anti-collision
Coating Thickness	15u + 2u
Coating Technique Support	Japan
Hydrophobic Property	Drop angle >103
Rain Stain Resistance	No visible stains



NANO CERAMIC FILM

Nano-ceramic film can be used on vehicle windows and windshields. These films are known for the excellent ability to absorb heat and reject up to 96% of infrared rays. These high-performance, energy efficient and advanced solar control film use the latest UV420++ nano technology cutting 100% of UV rays (UVA, UVB, UVC). The UV rejection properties are locked into the PET.

These films reject UV rays in the 400nm range thus providing excellent protection against UV damage to skin and interior of vehicle.



Excellent Solar Control



High-performance



Protect vehicle interior from dash cracks & fading

Ply	2	Gauge	50 Mic	Guarantee	15yrs	
Properties						
Tensile	Peel	SCR	Break	Elongation	Melting	Haze
1700 kg/cm	984 g/cm	3	56lbs/in	160%	260c - 265c	0,94

Specifications						
Properties	Arctic cool 70	Nano Cerami c 10	Nano Ceramic 40	Ice Cool 20	Ice Cool 35	Ice Cool 60
Visible light Transmittance	74	11	40	20	35	58
Visible light Reflectance	13,6	10,3	11,5	10,9	11,2	13
Optical Density (absorbance)	0,05	0,88	0,39	0,7	0,45	0,2
Solar Heat Gain coefficient	0,42	0,08	0,27	0,3	0,31	0,38
TSER	56	84	67	83	74	63
IR Rejection 950nm	91	100	92	91	97	85
IR Rejection 1400nm	96	100	97	99	99	97
UV Rejection	100	100	100	100	100	100



HIGH-PERFORMANCE HEAT ABSORBING

Nano-ceramic Films





HOMES, OFFICES & COMMERCIAL BUILDINGS

Architectural Films





BENEFITS OF WINDOW TINTING

We have a range of different architectural films for homes, offices & commercial buildings. While films have different uses, here are the top benefits of tinting your windows:

- **Reduce heat and loss gain through windows**
- **Block 99% of harmful UV rays**
- **Protect furniture & flooring from fading**
- **Increase privacy**
- **Increase safety**
- **Reduce glare**



WE MAKE GLASS LOOK BETTER

Reflective Films

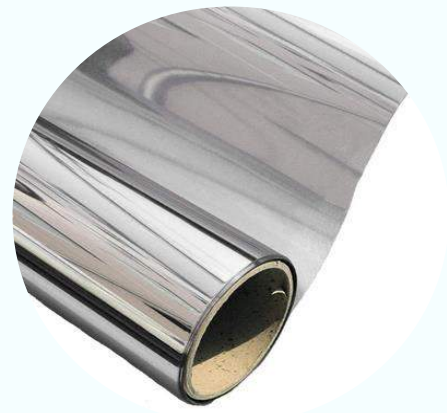


SILVER REFLECTIVE FILM

Silver Reflective is one of the most used films in the world because it reflects more heat than any other film and has excellent solar rejection. High quality reflective films block above 70% of solar heat, reduce glare up to 83%, block 99% of UV rays and reduce heat loss in winter by up to 30%

Solasafe's Silver film is the most cost-effective choice for all round sun control. Our film is a 2-ply vapour coated aluminum-based PET that is efficient at reducing glare and decreasing solar heat build up.

The film creates a mirror appearance which creates daytime privacy from the outside.



Reduce solar energy

Block up to 99% of UV rays

Increase privacy & safety

Reduce glare

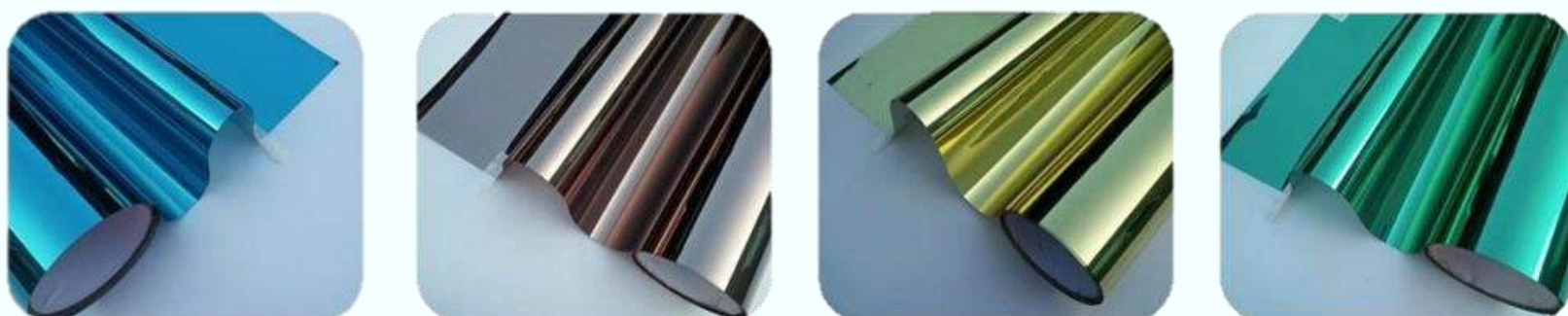
Ply	2	Gauge	50 Mic	Guarantee	7 yrs	
Properties						
Tensile	Peel	SCR	Break	Elongation	Melting	Haze
1700 kg/cm	984 g/cm	3	56lbs/in	160%	260c - 265c	2,95

Specifications					
Properties	Silver 0	Silver 5	Silver 20	Neutral 30	Neutral 50
Visible light Transmittance	0	8	17	41	50
Visible light Reflectance	115,8	60,1	82,8	48,3	44,5
Optical Density (absorbance)	2,8	1,05	0,83	0,93	0,41
Solar Heat Gain coefficient	0,001	0,06	0,14	0,31	0,36
TSER	89	80	73	59	58
IR Rejection 950nm	100	96	87	71	67
IR Rejection 1400nm	100	99	94	77	75
UV Rejection	99	99	99	99	99,9

COLOURED REFLECTIVE

Solasafe's coloured reflective film is a cost-effective choice for sun control while adding colour for aesthetic effects. The film is a 2-ply vapour coated aluminum film with an infused coloured layer that is efficient at reducing glare and decreasing solar heat build up. These films have reflective properties and do absorb heat and glare by forming a barrier from the sun's rays. The film has an attractive appearance with the colour facing outside.

High quality reflective films block above 70% of solar heat, reduce glare up to 83%, block 99% of UV rays and reduce heat loss in winter by up to 30%



Ply	2	Gauge	50 Mic	Guarantee	7 yrs
Properties					
Tensile 1700 kg/cm	Peel 984 g/cm	SCR 3	Break 56lbs/in	Elongation 160%	Melting 260c - 265c
					Haze 2,95

Specifications				
Properties	Bronze 15	Gold	Blue	Green
Visible light Transmittance	9	10	8	10
Visible light Reflectance	28	75,8	0,47	
Optical Density (absorbance)	1,02	0,97		1,15
Solar Heat Gain coefficient	0,1	0,08		0,1
TSER	74	78	61	76
IR Rejection 950nm	82	90	68	90
IR Rejection 1400nm	87	94	74	90
UV Rejection	99	99	99	99





WE MAKE GLASS LOOK BETTER

Non-reflective Films



CINDER

Cinder is manufactured from colour infused PET (polyester) using Nano-inorganic dyes. This non-reflective film is deep-dyed with a sleek charcoal finish. Cinder films have long durability and good optical clarity. They have stable colour performance and are UV stabilized. Cinder is ideal for home, office & commercial glass. Cinder is also applied as a safety film on a vehicles back window as it is easily moulded.



Ply	2	Gauge	50 Mic	Guarantee	2 yrs	
Properties						
Tensile	Peel	SCR	Break	Elongation	Melting	Haze
1700 kg/cm	984 g/cm	3	56lbs/in	160%	260c - 265c	2,95

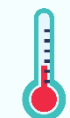
Specifications				
Properties	Cinder 03	Cinder 20	Cinder 35	Cinder 50
Visible light Transmittance	3	18	29	50
Visible light Reflectance	10,2	10,1	10,7	11,3
Optical Density (absorbance)	1,34	0,78	0,56	0,11
Solar Heat Gain coefficient	0,38	0,43	0,49	0,61
TSER	40	36	35	26
IR Rejection 950nm	10	9	10	10
IR Rejection 1400nm	7	5	5	7
UV Rejection	82	99	99	99



Sleek charcoal finish
Non-reflective



Block up to 99% of
sun's harmful UV rays



Heat rejecting



Increase privacy
& safety



Reduce glare

EBONY

Ebony Film is manufactured from PET that has been infused with heat rejecting organic nano-carbon particles during the extrusion process. Ebony film has above average heat rejecting properties and excellent clarity. These films have superb heat shrinkage and long durability. Ebony film is suitable for architectural use as well as for application on vehicle back windows.



Ply	2	Gauge	50 Mic	Guarantee	2 yrs	
Properties						
Tensile	Peel	SCR	Break	Elongation	Melting	Haze
1700 kg/cm	984 g/cm	3	56lbs/in	160%	260c - 265c	2,95

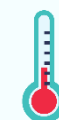
Specifications				
Properties	Ebony 05	Ebony 20	Ebony 35	Ebony 50
Visible light Transmittance	5	20	35	50
Visible light Reflectance	10,2	10,4	11	11,2
Optical Density (absorbance)	0,25	0,25	0,5	0,2
Solar Heat Gain coefficient				
TSER	66	53	36	34
IR Rejection 950nm	72	45	40	33
IR Rejection 1400nm				
UV Rejection	99	99	99	99



Sleek charcoal finish
Non-reflective



Block up to 99% of
sun's harmful UV rays



Heat rejecting



Increase privacy
& safety

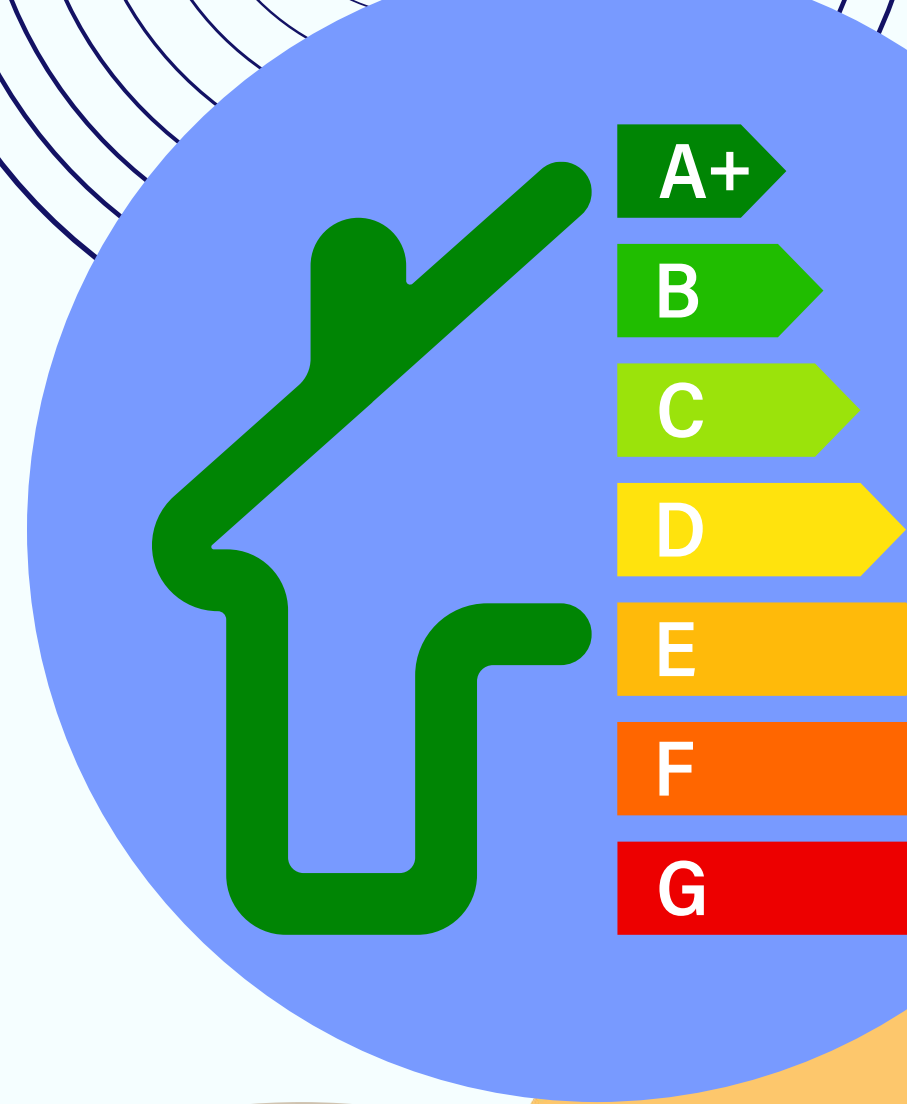


Reduce glare



HIGH-PERFORMANCE HEAT ABSORBING

Nano-ceramic Films



NANO-CERAMIC FILM

Nano Ceramic Films are known for the excellent ability to absorb heat and reject up to 96% of infrared rays. These high-performance, energy efficient and advanced solar control film use the latest UV420++ nano technology cutting 100% of UV rays (UVA, UVB, UVC). The UV rejection properties are locked into the PET. This films insulation properties keep a space cool in summer and warm in winter, reducing electricity bills.

These films reject UV rays in the 400nm range thus providing excellent protection against UV damage to skin and interior furnishings.



High-performance



Low E | Energy Efficient



Excellent Solar Control



Ply	2	Gauge	50 Mic	Guarantee	15yrs	
Properties						
Tensile	Peel	SCR	Break	Elongation	Melting	Haze
1700 kg/cm	984 g/cm	3	56lbs/in	160%	260c - 265c	0,94

Specifications						
Properties	Arctic cool 70	Nano Ceramic 10	Nano Ceramic 40	Ice Cool 20	Ice Cool 35	Ice Cool 60
Visible light Transmittance	74	11	40	20	35	58
Visible light Reflectance	13,6	10,3	11,5	10,9	11,2	13
Optical Density (absorbance)	0,05	0,88	0,39	0,7	0,45	0,2
Solar Heat Gain coefficient	0,42	0,08	0,27	0,3	0,31	0,38
TSER	56	84	67	83	74	63
IR Rejection 950nm	91	100	92	91	97	85
IR Rejection 1400nm	96	100	97	99	99	97
UV Rejection	100	100	100	100	100	100

EXCEL (XL)

Solasafe's XL range of films are constructed from PET infused with Nano-ceramic alloys that have high heat rejecting properties. The XL range is optically clear with excellent UV protection infused into the film. XL films have non-fading properties that will last more than 10 years. Solasafe XL range of environmentally friendly films give long lasting performance under long period of sun exposure.



Ply	2	Gauge	50 Mic	Guarantee	10 yrs
Properties					
Tensile 1700 kg/cm	Peel 984 g/cm	SCR 3	Break 56lbs/in	Elongation 160%	Melting 260c - 265c
			Haze 2,95		

Specifications				
Properties	XL 15	XL 30	XL 50	XL 80
Visible light Transmittance	10	30	46	60
Visible light Reflectance				
Optical Density (absorbance)	0,35	0,5	0,37	0,19
Solar Heat Gain coefficient	0,13	0,25	0,35	0,42
TSER	75	75	56	54
IR Rejection 950nm	92	80	68	80
IR Rejection 1400nm	95	80	79	87
UV Rejection	99	99	99	99



Excellent Solar Control



High-performance

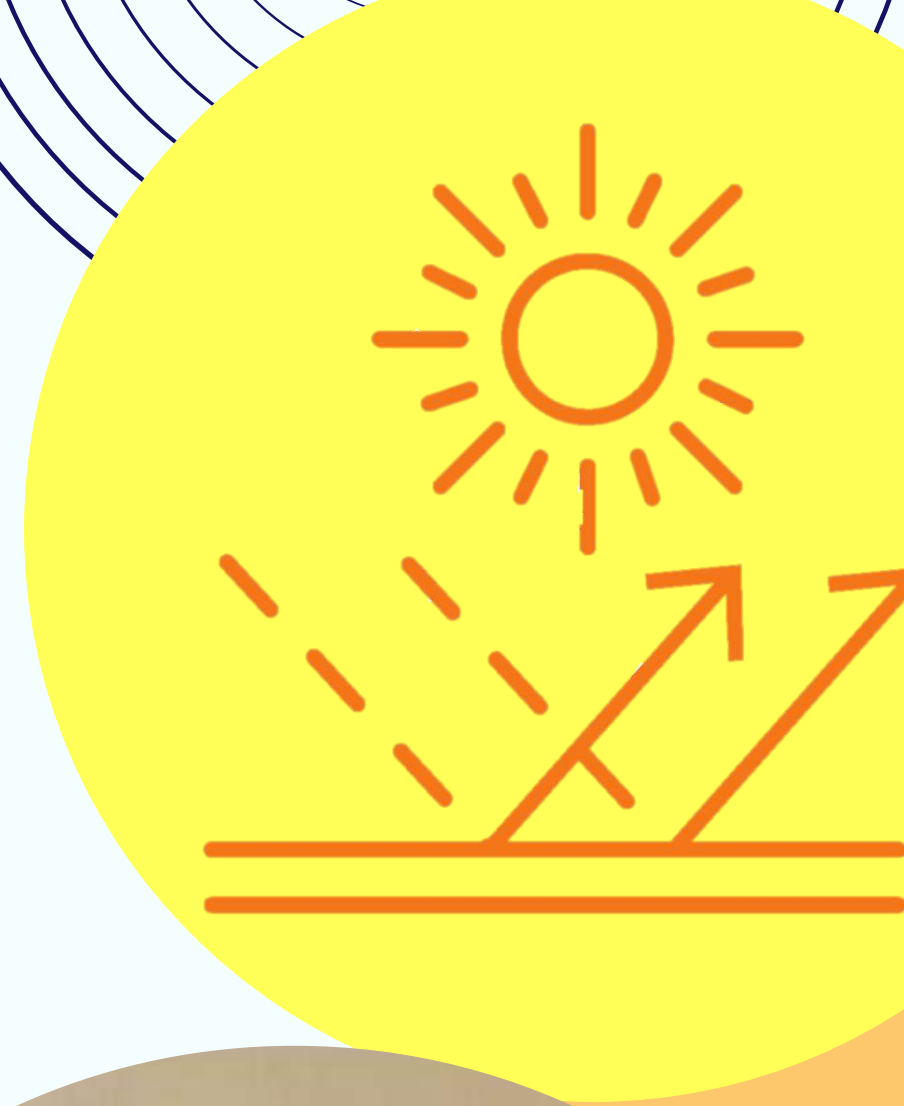


Low E | Energy Efficient



HIGH-PERFORMANCE HEAT ABSORBING

Solar Control Films



EBONY E

Ebony E is a semi-reflective high-performance solar control film with a nano thin layer of alloy. The matrix arrangement of particles allows for high transparency and excellent solar protective properties. It is very stable, has high durability and excellent heat rejection. Ebony E is an excellent option for homes, offices and commercial spaces. Note: This film is not reflective from the inside of room.



Ply	2	Gauge	50 Mic	Guarantee	5 yrs	
Properties						
Tensile	Peel	SCR	Break	Elongation	Melting	Haze
1700 kg/cm	984 g/cm	3	56lbs/in	160%	260c - 265c	2,95

Specifications			
Properties	Ebony E 15	Ebony E 35	Ebony E 50
Visible light Transmittance	17	30	50
Visible light Reflectance	35,3		
Optical Density (absorbance)	0,78	0,56	0,3
Solar Heat Gain coefficient	0,24	0,3	0,6
TSER	62	53	26
IR Rejection 950nm	63	50	30
IR Rejection 1400nm	65	52	38
UV Rejection	99	99	99



**Excellent
Solar Control**



**Semi-reflective
Charcoal finish**



**Block up to 99% of
sun's harmful UV rays**



**Increase privacy
& safety**



Reduce glare



WE MAKE GLASS LOOK BETTER

Decorative & Privacy Films



FROSTED/SANDBLAST VINYL

Frosted vinyl is an excellent choice for those who require privacy but do not want to lose natural light or darken a room . Frosted vinyl can be applied to glass doors and windows in different ways to enhance an interior space and create private areas such as in office meeting rooms. Frosted vinyl can also be cut according to a decorative design bringing unique creativity to ordinary glass. Unlike sandblast/frosted glass, frosted vinyl can be removed.



COLOURED FILM

Solasafes Decorative films are pigmented deep dyed and 2 ply films that are designed for aesthetic purposes.

These films can be applied to a range of different glass surfaces in offices, showrooms and homes.

Coloured films can be used to enhance ordinary glass and are popular in offices to enhance corporate identity colours or to divide spaces by colour.





YOUR INVISIBLE SECURITY BARRIER

Safety Films



SAFETY FILM

Solasafe has a range of quality tested clear safety films. Solasafe safety films use thicker polyester film and have extra adhesive without compromising the haze value. The safety films are laminated for added strength. The adhesives are stronger than used on other films and has high solidity and high bonding strength. The films are infused with UV inhibitors giving excellent durability once fitted.



Ply	1/2/3	Gauge	Varies	Guarantee	7 years	
Properties						
Tensile	Peel	SCR	Break	Elongation	Melting	Haze
1700 kg/cm	984 g/cm	2	56lbs/in	160%	260c - 265c	0,94

Specifications			
Properties	100 Micron	200 Micron	300 Micron
Solar Transmittance %	80,5	74,9	74,9
Visible light Reflectance %	7,4	11,4	11,7
Solar Absorbance %	12,1	13,7	14,1
Solar Heat Rejection %	8	17,5	17,8
UV Rejection %	99	99	99



Reinforce glass windows



Protect your family!



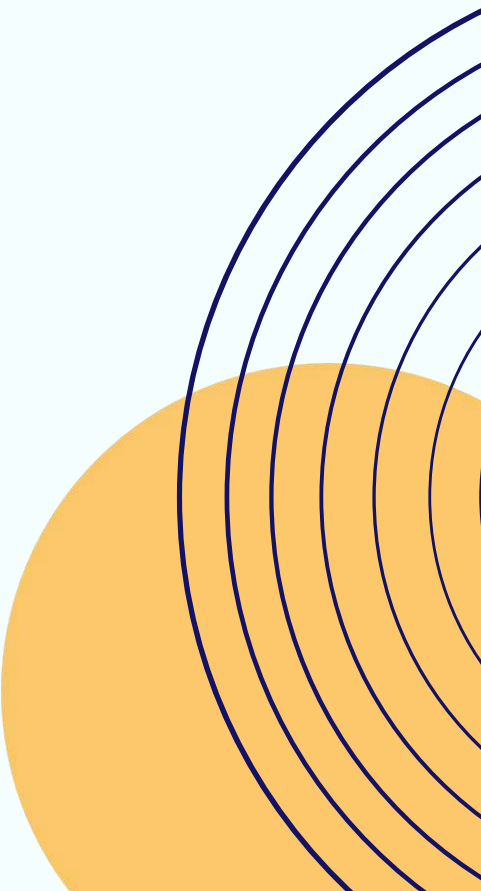
Prevent opportunistic crime!



Stop flying glass

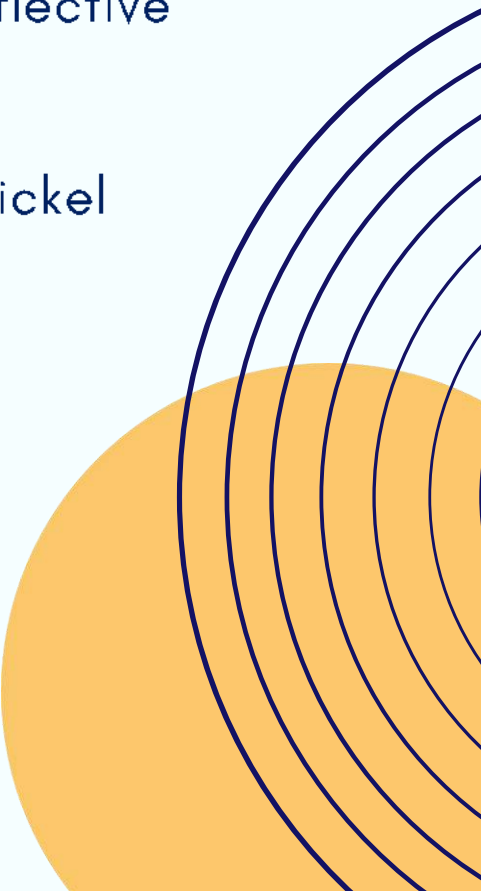
FILM TERMINOLOGY

Important Terms	
Visible light Transmittance	Visible light Transmittance (VLT) describes the percentage of visible light (approximately 390 to 780 nanometers within the solar spectrum) transmitted through the glass. It is determined by the film's color and the glass's thickness. Clear float glass has 75% to 92% VLT.
Visible light Reflectance (Solar Reflectance)	Visible light Reflectance (VLR) – is the measurable amount of visible light that is reflected out by a glazing system. A glazing system with a high VLR means that most of the daylight is not passing through the window.
Optical Density– Absorbance Solar Absorbance	Optical density is the measure of absorbance, defined as the ratio of the intensity of light falling upon a material and the intensity transmitted.
Solar Heat Gain coefficient	The fraction of solar radiation admitted through glass --as transmitted directly plus absorbed, and subsequently released as heat inside a home. The lower the SHGC, the less solar heat it transmits and the greater its shading ability.
TSER	Total Solar Energy Rejected (Heat rejection)
IR Rejection 950nm	IR makes up 53% of Solar energy. (VL= 44%, UV= 3%) and all 3 make up total solar energy. (TSER combines all 3).
IR Rejection 1400nm	
UV Rejection	The amount of UV light rejected



ABOUT OUR FILMS

1. Solasafe premium films are manufactured to order by our factory, a leading manufacturer of premium infused window film.
2. Solasafe films are produced using an infusion Technology where by colour is embedded in the PET this gives Solasafe film added stability .
3. Solasafe films are constructed using a thicker coating of a long proven adhesive from Henkel, Germany. The thicker adhesive results in cleaner applications and improved bonding strength as defects are absorbed into the adhesive decreasing halo's
4. Solasafe films weather test the infused PET before extrusion to ensure durability . The final product undergoes further weathering tests
5. Solasafe's infusion process allows for the embedding of Colour, IR and UV rejection elements into the PET during the polymerisation thus enhancing durability.
6. Solasafe has been supplying film since 1983 and has a wide range of Organic, Inorganic, Nano ceramic, Low E , Sputtered, Reflective and Safety films that enhance the properties of all glass.
7. Solasafe premium films generally have a natural neutral appearance and have a high moisture permeability. The metals like nickel create a corrosion resistant product.
8. Solasafe films have a low haze value.
9. Solasafe films are environmentally friendly and are recyclable
- 10 Solasafe films have excellent warranties



CONTACT



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JHB.**



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