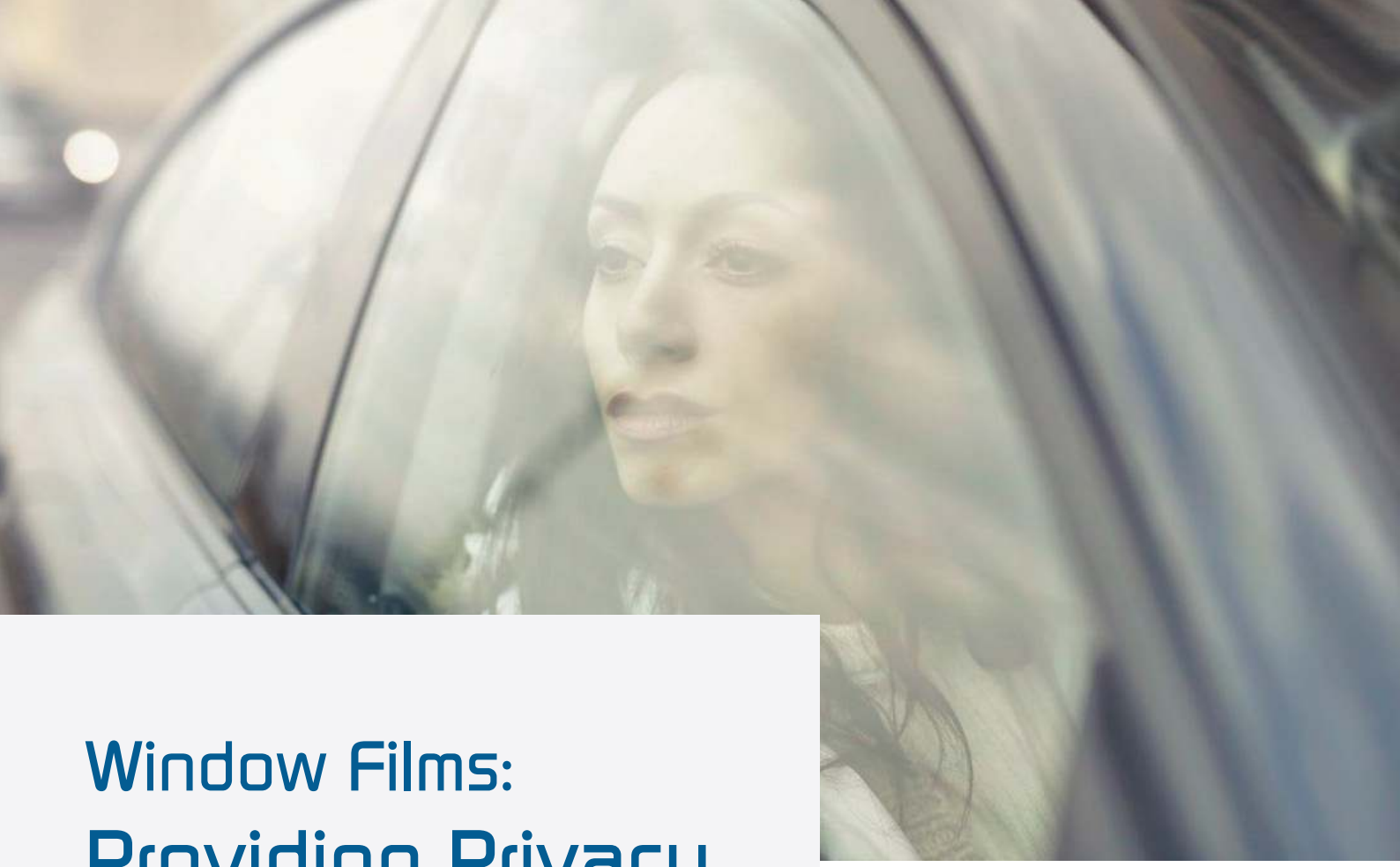

Window Films:
Providing Privacy and Increased Protection

Window films provide safety, security, solar control, privacy and decorative advantages for building and transportation glazing.

Where privacy or protection is required or desired, window films provide advantages, restricting viewing through a window from the outside, and increasing the integrity and shatter resistance of glass in both automotive and building applications.

On building or vehicle glazings, window films add privacy and provide a visual break while letting light pass through. At the same time, window films provide a heightened degree of protection: Whether accidental or deliberate, glass breakage can lead to physical injury or damages, and safety window films ensure that breaking glass is held in place.

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Benefits

- Increased privacy
- Increased protection against accidents, theft and vandalism
- Improved appearance
- Increased protection against UV rays
- Increased protection against subsequent fading

Window Films
Increased privacy and improved appearance

Since window films block up to 99% of UV rays, automotive privacy or decorative window films can avoid vehicle over-heating and minimise air conditioning use. They can also help improve the vehicle appearance by upgrading the existing glazing.

Thanks to their quick installation – EWFA recommends always to have your window films installed by professionals – they can support a vehicle's custom design while providing to drivers and passengers the necessary visual comfort and privacy.

Window films also represent an opportunity for privacy and decoration in residential, institutional or commercial buildings.

They are widely used by architects or designers to upgrade or customise the appearance of glazings or facades, or decorate interiors.

While providing increased privacy, window films also create a visual benefit and can help organise and delimitate spaces.They can even integrate a company's branding.

Window films are available in a variety of finishes, colours, shades, grades and tones. They are washable, resistant to scratch, easy to install and will peel off without leaving glue traces.

Window Films
Increased protection against accidents, theft and vandalism

The application of window films will provide increased protection in a variety of situations.

Automotive window films increase the integrity and shatter resistance of automotive glass. If a thief attempts to gain entry to a vehicle, window films will help hold the glass together, making it more difficult and time consuming to break and enter.

The increased shatter resistance also offers additional safety if accidental breakage occurs. Glass would remain held together, reducing the risk of injury or damage from shattered glass. This reduces the severity of immediate injury, and risk of subsequent injury.

For both vehicles and buildings, anti-graffiti and anti-scratch window films protect glass and glazing against vandalism and other attacks to the glass. Chemical damage, paint splatter, key scratches and acid etching can be reduced or eliminated when window films are present.

Wrap film, also known as Paint Protection Film (PPF) can also be applied to painted surfaces. In the same way that window films protect glass and glazing, PPF can protect any painted surfaces, from cars, industrial or farm machinery to public transport surfaces.

Window Films
Increased protection against UV rays and subsequent fading

Fading is the degradation of pigments resulting in a change of appearance of an object to the human eye. It is caused by a number of factors, such as UV rays, heat and visible light. When ultraviolet rays reach an object, they can break down the chemical bonds, fading the colours.

Exposure to UV rays can lead to fading of floors, furniture, carpets and artwork – sometimes causing irreparable damage.

> Window films block up to 99% of UV radiation.

This significantly reduces the biggest contributor to fading: UVA rays.

Minimising UVA rays helps to protect a building's interior or a vehicle's interior – as well as their contents – against fading.

> Ultraviolet radiation (UV) is the single largest contributing factor to the fading of fabrics, carpets and other furnishings.

Although visible light, electric lighting, heating, humidity, age of fabrics and fabric dyes all play a part in the process, UV radiation is attributed to 40% of resulting damage.

SOURCE: www.fsec.ucf.edu/en/consumer/buildings/basics/windows/fading.htm

Fact

> Window films increase the integrity and shatter resistance of glass.

Selecting and Installing the Right Window Film

Window films are highly engineered, optically clear, polyester film composites. They undergo various treatments to provide safety, security, solar control and decorative enhancements for building and transportation glazing.

Window films are available in a variety of grades, shades and tones and varying levels of performance, thickness, and certification. The correct product will depend on many factors such as the building and glass specifics, or the vehicle's requirements - and the combination of benefits desired.

Performance, Testing and Certification

Window film manufacturers extensively test their products to ascertain individual performance and ensure continued durability.

There are many existing standards to which products can be tested – however, safety and security window films are usually tested to the following standards, endorsed by EWFA and its mother organisation, IWFA (the International Window Film Association):

- **Impact Resistance -** European Standard EN12600
- **Forced Entry -** European Standard EN356
- **Blast -** International Standard ISO16933

Professional Installation

Safety window films are cost effective and non-disruptive to install. However, professional installation is highly recommended to ensure that the full benefits of safety window films are achieved.

Always seek professional advice from an EWFA member company.

(Link: https://iwfa.com/ewfa/en-us/Membership/Our-Members)

Contacts

For more information, contact the European Window Film Association:

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