# William Smith Vehicle Wrapping The Professional's Guide. William Smith

# The Professional's Choice.

The difference is in the detail.

As part of William Smith Group 1832, William Smith is one of the UK's leading distributors of self-adhesive materials and associated accessories to the sign, graphics and building interiors industries.

We place high standards on everything we do. As a trade-only company, we understand our customers and respect their business.









# Vehicle Wrapping Films

With the popularity of vehicle wrapping as a business advertising medium, we can supply a range of films and accessories to achieve outstanding results.

### Create an exciting first impression

A smartly wrapped vehicle can reinforce your company's brand and reassure customers they're dealing with experts. Vehicle wraps capture the attention of potential customers; "...on average a commercial vehicle can be seen by 3,000 people every hour..." Independent survey carried out in December 2008.

### Protect your business reputation

70% of consumers are more likely to employ a company's services based on the appearance of their vehicles. With vehicle wraps, every mile you drive can help promote your business.

### Protect your assets and increase their resale value

Vehicle wraps will protect your paintwork against stone chips and minor abrasions. The wrap can be fully removed at the end of the vehicles use maximising the potential resale value.

We offer a knowledge hub for the trade, containing videos, galleries, product and application bulletins, hints, tips and FAQs about vehicle wrapping. We're offering our knowledge of the tools and materials we supply, to help you in your vehicle wrap applications.

To access this useful information visit our website:

www.williamsmith.co.uk/vehicle-wrapping



The best thing about vinyl wrapping is that there's no four week wait. A full wrap can be completed in just two days from start to finish. And with decent bodywork, it will look just as good as a re-spray but can cost half the price.

Mark Riccioni, Max Power



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# Wrap Film Features, the detail...

# Repositionability

- 3M<sup>™</sup> Controltac<sup>™</sup> slide and reposition graphics before activating the adhesive with pressure for perfect results.
- Avery Dennison® Repositionable and Slideable (RS) adhesive technology that allows repositionability and slideability of graphics.
- Arlon FLITE™ technology a lite contact adhesive system
  allowing graphics to float over a substrate until firm pressure
  is applied.

# Air Release Liner Technology

- 3M™ Comply™ non-visible air channels offer the ultimate air release technology for bubble free application.
- 3M<sup>™</sup> microComply<sup>™</sup> micro air channel technology for a smooth visual appearance.
- Avery Dennison® Easy Apply™ (EA) air egress system to reduce the risk of bubbles.
- Arlon X-Scape Technology™ air egress technology.
- Arlon LX smooth finish, low profile X-Scape Technology™ air egress technology.



FILMS FOR **DIGITAL PRINT** FILMS FOR **DIGITAL PRINT** 



A value cast film for applications on to flat or moderately curved surfaces for car wraps and single step, shallow recessed van wraps.

### **Key Features:**

- Up to 8 year durability, 50 micron film
- Features Comply™ v3 adhesive
- Grey adhesive for excellent hiding power and opacity
- Low tack adhesive for easy repositionable application

Code/Colour:

IJ170-10Cv3 Gloss White Comply™ Version 3

**Recommended Overlaminate:** 

8518



### A white gloss high-performance polymeric film with FLITE™ Technology.

### **Key Features:**

- Up to 7 years durability, 60 micron film
- Thin, Flexible, High-Performance Polymeric film, facilitating easier handling and installation
- Clean removability up to 2 years on most vehicle wrap application
- Superior conformability-great for vehicle wraps and graphics with simple to moderate curves
- Features FLITE Technology which allows for exceptional repositionability, developing a quick anchor tack to speed up installations







Code/Colour:

Fusion Wrap Gloss White with FLITE™

**Recommended Overlaminate:** 

3170







Single



FILMS FOR **DIGITAL PRINT** FILMS FOR **DIGITAL PRINT** 





A premium cast film for optimised performance on vehicles with compound curves and corrugations.

### **Key Features:**

- 10 year durability, 50 micron film
- Features Controltac<sup>™</sup> and Comply<sup>™</sup> v3 / micro Comply<sup>™</sup>
- Available with grey adhesive for excellent hiding power and opacity

IJ180-10 Gloss White

IJ180C-10 Gloss White Comply™

IJ180-10Cv3 Gloss White Comply™ Version 3

IJ180mC-10 Gloss White Micro Comply™

IJ180mC-114 Gloss Clear Micro Comply™

IJ180mC-120 Metallic Micro Comply™

IJ180mC-10UR Gloss White Micro Comply™

IJ180mC-10LSE Gloss White Micro Comply™ (Low Surface Energy)

IJ180mC-10SLS Gloss White Micro Comply™ (Stainless Steel)

### **Recommended Overlaminate:**

8518, 8520, 8548G, 8549L

### Code/Colour:

(Ultra Removable)

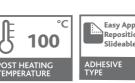


**Key Features:** 

· All 50 micron films

and difficult substrates

• Excellent printability on all platforms



A series of super cast and cast films, offering a

range of adhesive features to tackle any application.

MPI™ 1105 gives maximum life with up to 10 year durability and

MPI™ 1104 and 1106 give a long life with up to 7 year durability

• Premium cast MPI™ 1105 offers unparalleled performance on the

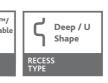
most demanding 3D applications, whilst MPI™ 1104 offers an

MPI™ 1106 features a hi-tack adhesive suitable for low-energy

• Available with Easy Apply™ and Repositionability and Slideability.

economy cast solution for versatile 3D performance

MPI™ 1105 also features Long Term Removability



### Code/Colour:

MPI 1104 Gloss White Repositionable

MPI 1104 EA Gloss White Repositionable Easy Apply™

MPI 1105 Gloss White

MPI 1105 EA RS Gloss White Easy Apply™,

Repositionable Slideable

MPI 1106 Hi-tack EA Gloss White Hi-tack Easy Apply™

### **Recommended Overlaminate:**

DOL 1000 Gloss, DOL 1100 Matt, DOL 1460 Gloss, DOL 1480 Matt, DOL 1460 Z Gloss, DOL 1480 Z Matt









FILMS FOR **DIGITAL PRINT**FILMS FOR **DIGITAL PRINT** 





A premium cast film, conformable on the most difficult recessed areas, providing superior conformability around rivets, curves, and contours.

### **Key Features:**

- Up to 7 year durability, 50 micron film
- Low tack repositionable adhesive system
- Features X-Scape / XLP adhesive
- Tinted adhesive for excellent hiding power and opacity

### Code/Colour:

DPF 6000RP Gloss White
DPF 6000RP Gloss Clear
DPF 6100XLP Gloss White Low Profile X-Scape

3210G, 3220M

**Recommended Overlaminate:** 

Premium film designed for full and partial vehicle and fleet applications. Conforms around rivets, complex curves and deep channels with ease.

### **Key Features:**

- Up to 7 year durability, 50 micron film
- Appropriate for the single installer, this film allows for a fast wrap
- Features FLITE™ Technology
- · Vibrant and reliable print quality
- Tinted adhesive for excellent hiding power and opacity

Code/Colour:

SLX Gloss White FLITE™ Technology

Recommended Overlaminate:

3270

















FILMS FOR **DIGITAL PRINT**REFLECTIVE



A white, flexible, enclosed-lens film offers robust retroreflective technology, which achieves a very dramatic appearance-enhanced at night.

### **Key Features:**

- Up to 9 year durability, 165 micron film
- Features Controltac<sup>™</sup> and micro Comply<sup>™</sup> adhesive
- Creates dynamic graphics for any time of day, resulting in a daytime sparkle or a night time shine
- 9 years expected performance life
- Bruising or dark spots can be repaired using heat
- · Excellent retroreflectivity at wider viewing angles

Code/Colour:

780mC-10R White Reflective Removable

**Recommended Overlaminate:** 

8518









### REFLECTIVE



# A digital print reflective vinyl film featuring FLITE™ Technology.

### **Key Features:**

- Up to 7 year durability, 125 micron film
- Features FLITE™ Technology which allows for exceptional repositionability to alleviate bruising or chatter lines resulting in optimal reflectivity
- Easily conforms to irregular surfaces and glides over smooth surfaces
- · Brilliant graphics by day, luminous graphics by night
- For full or partial wraps

### Code/Colour:

IllumiNITE White Reflective with FLITE™ Technology

FILMS FOR **DIGITAL PRINT** 

### Recommended Overlaminate:

3220, 3210









FILMS FOR **DIGITAL PRINT** NON-PVC



Non-PVC film, ideal for long term applications on smooth surfaces and short term wall graphics on textured surfaces.

### **Key Features:**

- Up to 12 year durability, 50 micron non-PVC film
- Highly conformable over compound curves, corrugations, deep channels and rivets
- Features Controltac<sup>™</sup> and micro Comply<sup>™</sup> adhesive
- · Highly conformable and installs in extreme temperatures, requiring less heat during application than PVC vinyl film

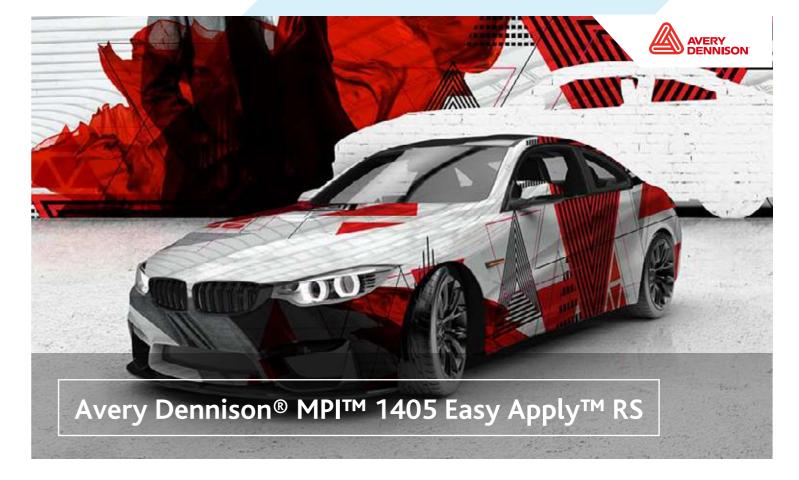
### Code/Colour:

8548G, 8549L

**LX480mC** Gloss White Micro Comply™ SV480mC Gloss White Micro Comply™

**Recommended Overlaminate:** 

### NON-PVC



An eco-friendly, PVC-free wrapping film for textured outdoor applications and vehicles.

### **Key Features:**

- Up to 10 year durability, 51 micron PVC-free film
- Superior conformability to irregular shapes including complex curves and deep recesses on vehicles
- Features Easy Apply™, Repositionability and Slideability adhesive technology
- High gloss finish
- Long Term Removable adhesive

### Code/Colour:

MPI 1405 EA RS Gloss White PVC-free Easy Apply™, Repositionable and Slideable

FILMS FOR **DIGITAL PRINT** 

**Recommended Overlaminate:** 

DOL 6460

















# Outgassing...

# How should I outgas?

Outgassing is the process of removing solvents from the printed graphic. Prior to lamination, prints should be left at 23°C, for a minimum of 48 Hours. Images with dense colours may need more time. There should be a constant flow of air over the graphics to ensure the solvent is moved away from the face. As solvent is heavier than air, it will not move unless aided from airflow.

# Why should I outgas?

Solvents still within the prints will cause the film to feel tacky when applying. Solvents soften the adhesive, removing any adhesive benefits. Once the graphic is applied, the solvent continues to soften and weaken the adhesive. Beware on panel edges and recesses, where the adhesive is weakened and no longer able to adhere, causing the film to 'pop' from the recess.

# Post Heating...

# How should I post heat?

Post heating must be done after each panel is completed using a digital thermometer for accurate temperatures. Always remove the heat gun from the area you're measuring, heat and measure every 3-4 inches referring to product bulletins for recommended temperatures. Use a small channel roller in the recesses.

# Why should I post heat?

Post heating speeds up the process of adhesive flow and helps reach maximum adhesive bond over a short amount of time. Post heating removes the film memory. If you do not post heat correctly this will cause the film to pop from a recess.



# FILMS FOR **COLOUR CHANGE**



A premium quality semi-conformable film, designed for use in vehicle and graphic markets where chrome details are desired.

- Up to 3 year durability, 142 micron film
- Suitable for flat, concave and convex surfaces
- Features Easy Apply<sup>™</sup>, repositionability and slideability adhesive technology with long term removability
- · Available in 1220mm width and variable roll lengths















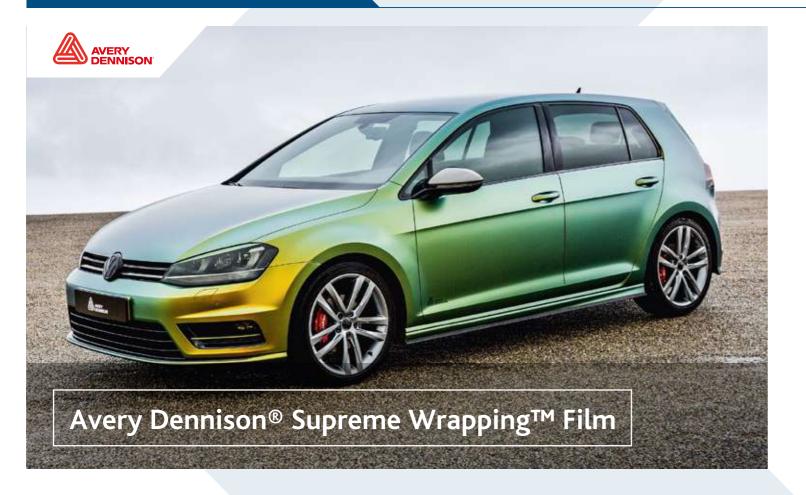












Large range of premium cast, dual layer films designed for solid colour vehicle detailing and full wraps with exceptional 3D conformability.

- Up to 12 year durability, 80 micron film
- Exceptional 3D conformability on concave and convex shapes including deep channels
- Available in a choice of high gloss, satin, matt, metallic pearl and diamond finishes, resulting in 'paint-like' appearance
- Features Easy Apply<sup>™</sup>, repositionability and slideability adhesive technology with long term removability
- Available in 1524mm x 25m roll sizes



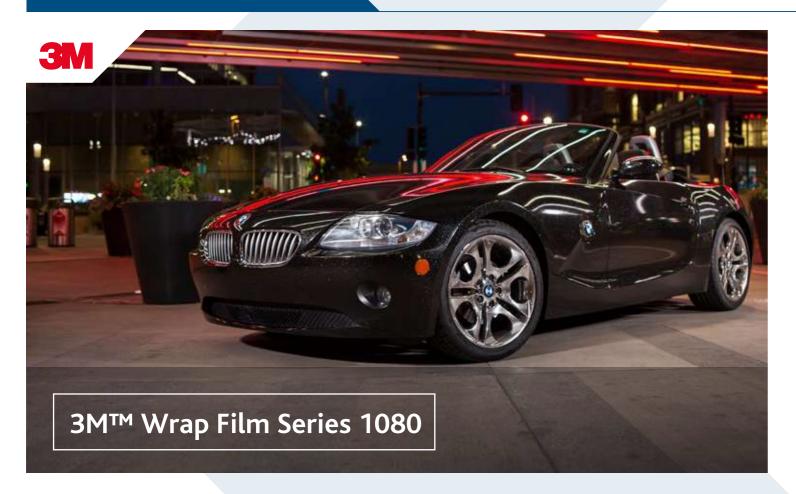












Large range of premium cast, dual layer films designed for solid colour vehicle detailing and full wraps.

- 6 year durability, 90 micron film
- For flat or moderately curved surfaces
- Large colour/finish range of gloss, matt, metallic, satin, brushed, carbon fibre, flip and sparkle films
- Features Controltac and Comply™ Technology
- Excellent opacity to hide high-contrast surfaces
- Wider roll width of 1524mm for wrapping any section without joins













A NEW multi-layer 3D conformable cast self-adhesive film for solid colour detailing and full wraps on a whole host of vehicles.

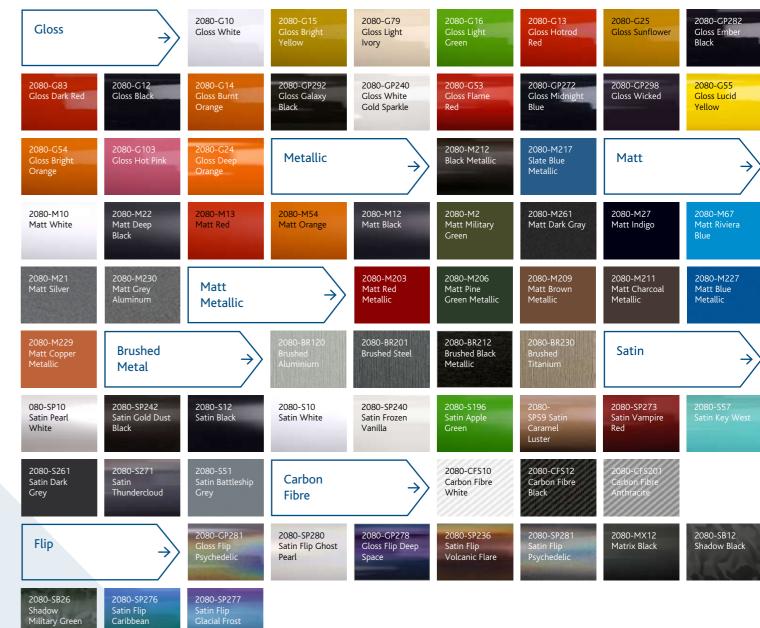
- Fully 3D conformable, ideal for deep recesses
- Gloss colours have a clear protective film layer to help prevent scratching on installation (this is removed once in place)
- Up to 8 years durability, 90 micron film
- 40 colours (more to follow soon)
- Easy to apply and remove
- 1524mm roll width, ideal for wrapping vehicle panels without joins



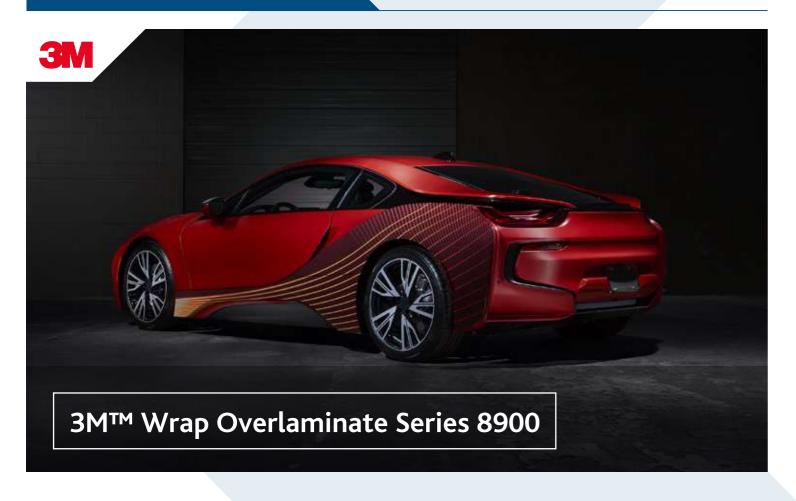








# FILMS FOR **COLOUR CHANGE**



P I III IIII III III 3M™ Wrap Film Series 1380

Speciality overlaminates offering combinations of colours and textures like never before with coloured or printed films..

### **Key Features:**

- Up to 6 year durability, 50 micron film
- Textures include carbon fibre, brushed and sparkle effects
- Ideal for vehicle wraps to achieve textured look and feel
- For use on 3M™ 1080 and IJ180Cv3 films



Ideal for application on to the most severe recessed areas of a vehicle, without the need for cutting.

- Up to 6 year durability, 90 micron film
- Range of gloss, matt, metallic and satin colours
- Features Controltac<sup>™</sup> and Comply<sup>™</sup>
- · Conformable on the most difficult recessed areas



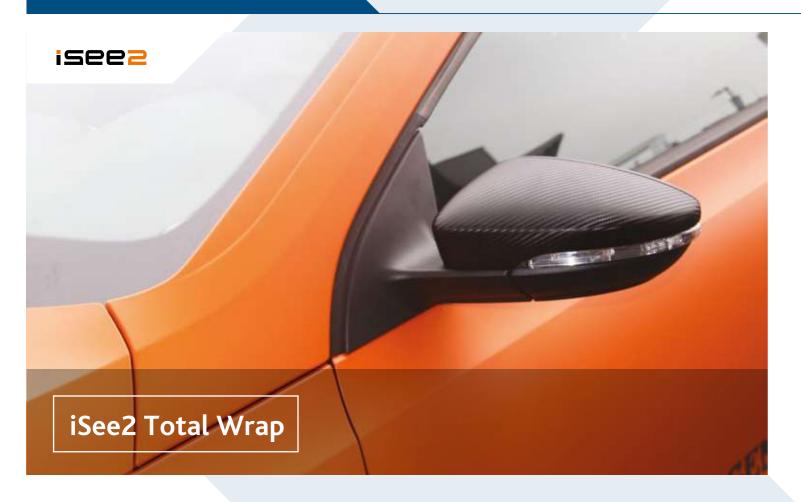


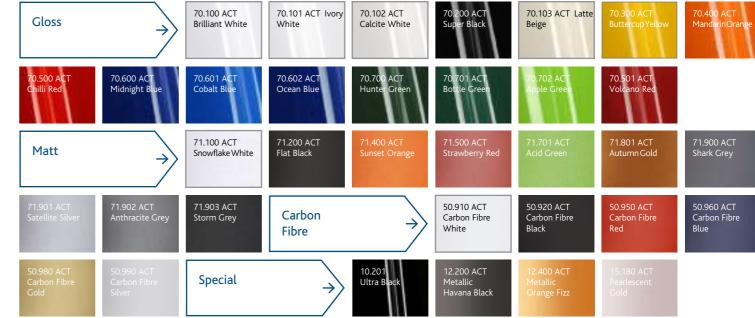












A range of competitively priced hybrid vehicle wrap films suitable for applications on cars or flat panel vans with simple curves and gentle contours.

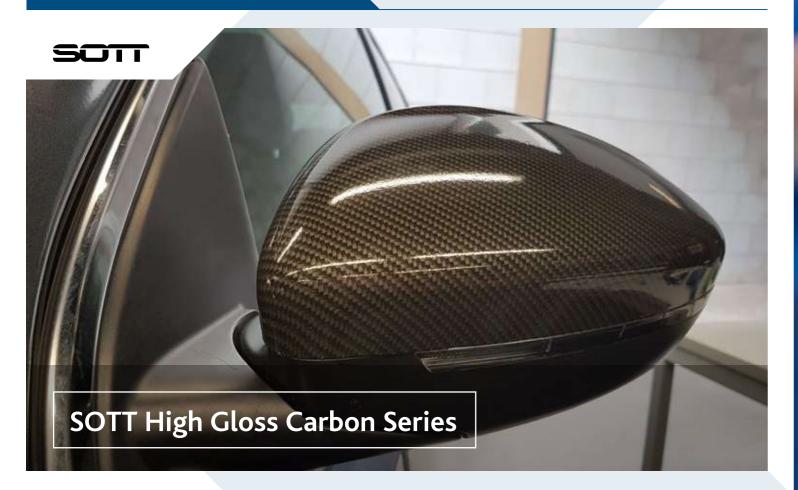
- Up to 7 year durability, 100 micron film
- Available in gloss, matt, textured, metallic and pearlescent colours
- Incredible dimensional stability and long term durability
- Features ACT
- Wider roll width of 1524mm for wrapping any section without joins











A high-gloss, cast film with a realistic carbon fibre pattern, creating a 3D depth effect. Suitable for use in extreme forms including channels.

### **Key Features:**

- Up to 4 year durability, 100 micron film
- Features Automotive X-adhesive with micro air channels and is repositionable
- The pattern runs diagonally, but remains very stable when the film is stretched and worked









# Caring for Your Vehicle Graphics...

Care for your vehicle graphics like you would any fine paint finish. Using high quality products designed specifically for car care, these cleaning and maintenance procedures will help keep your vehicle graphics looking their best.

### 1. Wash regularly

- Wash whenever the car appears dirty. Contaminants allowed to remain on the graphic may be more difficult to remove during cleaning.
- Rinse off as much dirt and grit as possible with water.
- Use a wet, non-abrasive detergent such as VION Car Care Cleaner and a soft, clean cloth or sponge.
- Rinse thoroughly with clean water. To reduce water spotting, immediately use a silicone squeegee to remove water and finish with a clean microfibre cloth.

### 2. Automated car washes

 Brush-type car washes are not recommended as they can abrade the film and cause edges to lift or chip, as well as dulling the film's appearance. Brushless car washes are acceptable.

### 3. Pressure washing

- Although hand washing is the preferred cleaning method, pressure washing may be used, providing these conditions are strictly followed:
- Ensure the water pressure is kept below 2000 psi (14 MPa).
- Keep water temperature below 80°C (180°F)
- Use a spray nozzle with a 40 degree wide angle spray pattern.
- Keep the nozzle at least 300mm (1 foot) away from and perpendicular (at 90 degrees) to the graphic.
- Beware holding the nozzle of a pressure washer at an angle to the graphic, as it may lift the edges of the film.

### 4. Difficult contaminants

 Soften difficult contaminants such as bug splatter, bird droppings, tree sap and similar contaminants by soaking them for several minutes with very hot, soapy water as early as possible. Rinse thoroughly and dry.

- If further cleaning is needed, test one of these products in an inconspicuous area to ensure no damage to the graphics. Spot clean the contaminants.
- Do not use rough scrubbing or abrasive tools, which will scratch the film. Wash and rinse off all residue immediately.

### 5. Fuel spills

• Wipe off immediately to avoid degrading the vinyl and adhesive. Then wash, rinse and dry as soon as possible.

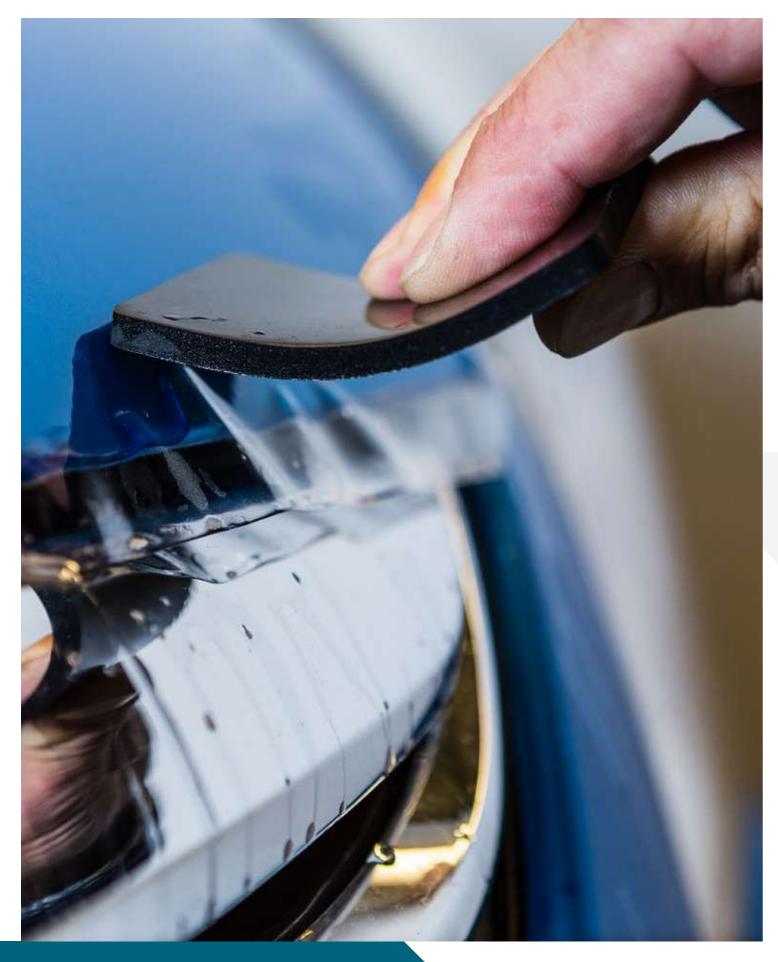
### 6. Polish and wax

- Most standard graphic films and overlaminates can be polished or waxed with a high quality car wax.
- Before use, test and approve in an inconspicuous area. Do not use any abrasive polishes or cutting compounds.
- 3M do not recommend any polishing or wax product for the matt or textured films.

### 7. Store indoors or under cover whenever possible

- Vinyl graphics (just like paint) are degraded by prolonged exposure to sun and atmospheric pollutants, particularly on the horizontal surfaces such as bonnet, boot <u>lid</u> and <u>roof</u>.
- Whenever possible, store in a garage or at least in a shaded area during the day. At night protect the car from dew or rain, which may contain acidic pollutants (a common problem in many large metropolitan areas).
- When a garage is not available, consider using a cloth car cover at night. If your graphics start to discolour or turn brown (which is caused by acidic pollution), immediately remove the graphics from the vehicle to avoid staining the underlying paint.

FILMS FOR **PROTECTION**FILMS FOR **PROTECTION** 



# 3M™ VentureShield™

An optically clear coated urethane film that protects automotive paint finishes against stonechips and minor abrasions.

### **Key Features:**

- Up to 5 year durability, 165 micron film
- Protects the most vulnerable surfaces on your vehicle from damage caused by stone chips, environmental elements, bugs, scratches and minor abrasions
- Easily applied to bumpers, headlights, wings, wingmirrors and bonnet edges
- Available in kit format for most vehicle types
- Warranted against yellowing or cracking

# **Avery Dennison® Pure Defense Series**

Transparent protection appropriate for high impact areas. The film protects from damage such as stone chipping, scratches and everyday wear and tear.

### **Key Features:**

PU

- High gloss, 150 micron PU film
- Highly transparent finish
- Heat activated self healing function
- Up to 8 years durability

### PV

- 150 micron PVC film
- Uniform surface appearance
- Up to 5 years durability
- Conforms to flat and simple

### Code/Colour:

Pure Defense PVC

# **Avery Dennison® Supreme Protection Film - XI**

A high quality self-healing clear film that prevents damage from a range of challenges to vehicle paintwork.

### **Key Features:**

- Up to 10 years, 165 micron, protection from stone chips, road debris, insect stains and weathering
- Small scratches disappear at room temperature and medium scratches when exposed to heat with 'self-healing' thanks to top coat
- Ultra-clear to ensure excellent aesthetics
- UV resistance
- · Low initial tack for wet application
- Easy to trim and remove
- Solid heat resistant

### Code/Colour:

SPF-XI High Gloss

FILMS FOR WINDOW TINTS

### FILMS FOR WINDOW TINTS



# Protemp™ Black Shade Series

A range of low cost non-metalised, dyed polyester automotive window tint films.

| Key | Featu | res |
|-----|-------|-----|
|-----|-------|-----|

- Choice of charcoal shading levels
- Does not interfere with mobile phone, GPS or satellite radio reception
- · Low cost dyed heat gain reduction technology
- Protection from the sun's heat and glare
- Sun Protection Factor of 100, blocking almost all UVA and UVB rays

### Code/Colour:

BS 5

BS 15

BS 30

D3 30

BS 45

# 3M<sup>™</sup> Automotive Window Films Colour Stable Series

Range of durable, colour stable, scratch resistant window tint films.

### **Key Features:**

- Choice of privacy levels and colours, manufactured with carbon pigments to give the most natural darkest looking finish
- · Colour will not fade to purple over time
- · Rejects heat and UV to reduce glare
- · Guaranteed not to bubble or blister
- Scratch resistant coating aids long lasting durability

# t films. Code/Colour:

CS 5 CS 20

CS 35

CS 50

# 3M™ Automotive Window Films Crystalline Series

High performance films, providing a combination of high visible light transmission, low visible light reflectivity and exceptionally high heat gain reduction capabilities.

Key Features:Code/Colour:• Virtually clear filmCR 40• Multi-layer metal free nano-technologyCR 70• Rejects more heat than darker filmsCR 90

# 3M™ Automotive Window Film Obsidian Series

A range of automotive sun control window films that reduce heat and block out UV light.

### **Key Features:**

• Rejects up to 44% of the total solar energy coming through your windows to keep you cool and protect you from harmful UV rays

No communications or network interference

- Blocks up to 99% of UV light to provide a Total Sun Protection Factor of up to 1000
- Available in different tint levels that block up to 92% of visible light, providing increased privacy and protection of valuables

### Code/Colour:

Obsidian 5 Obsidian 15

Obsidian 25 Obsidian 50

# 3M™ Scotchshield™ Automotive Security Series

Range of automotive window films combining sun control technology in a 100 micron safety film.

Key Features: Code/Colour:
 Glass shatter and impact protection which provides a powerful deterrent to smash and grab theft
 Rejects heat from the sun and increases privacy
 Protect vehicle occupants from uncomfortable heat and glare
 Sun Protection Factor of over 100
 SAS Clear





## **INTRODUCING OUR:**

### **VEHICLE WRAP TRAINING COURSE**

This comprehensive two day Vehicle Wrap Training Course is perfect for beginners and also relatively new wrappers who would like to improve on their skills. It covers all the basic techniques to wrap an entire vehicle, using a range of branded digital print and coloured wrap films, including  $3M^{\text{TM}}$ , Avery Dennison and Arlon.

The course is practically based but with some theory during the first morning. This gives each attendee as much time as possible to work with the wrapping films on a variety of car and van panels, practising techniques to approach various challenges.

Our trainers Gill Harrison, Training and Application Manager at William Smith and Mike Szwacki; a  $3M^{\text{TM}}$ , Avery Dennison and Arlon approved wrapper, will allow for plenty of one to one tuition during the two days.

### The session will include:

- A great balance of theory/hands-on practice
- Opportunity to use a range a range of branded wrap films, including 3M™, Arlon and Avery Dennison.
- Learn how to approach irregular surfaces and recesses found on many vehicles
- Tool bag including essential wrapping tools
- Certification of attendance

Visit williamsmith.co.uk/training for further details and dates of Academy courses or williamsmith.co.uk/brochures to download the Academy Training brochure.

The sign company's www.williamsmith.co.uk

TALIM WWW

11380 Series

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