



# standotheek

**Special colours.**



An Axalta Coating Systems Brand

**The Art of Refinishing.**



**Liquid metal effect**

**4**



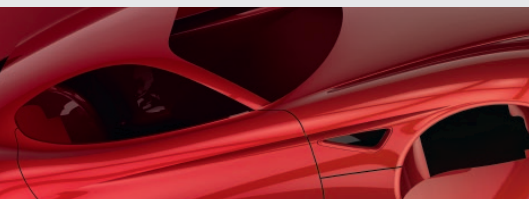
**Two stage finishes with tinted clearcoat**

**7**



**3-stage effect finishes**

**10**



**4-stage finishes**

**16**



**Matt finishes**

**20**

## Special effect paints – a challenge for any refinisher.

When car manufacturers launch new models onto the market, the Standox colour experts pay attention. They know that many models are launched with attractive special effect finishes in order to increase their eye-catching impact, and experience has taught them that these colours are very popular with buyers. So it is only a question of time before the first cars with the new special effect colour arrive in bodyshops for repair. After all, owners of new cars tend to want to keep them looking immaculate for as long as possible.

That's when "the art of refinishing" is required. Standox coined the phrase in the 1980s to describe work that ensures the repair is invisible once it is completed.

Deviations from the original colour that almost anyone would immediately notice are, of course, absolutely not acceptable. But special effect colours often present a challenge, even for experienced refinishers. Some can only be reproduced exactly if the paint is built up in a particular way. Getting it right the first time around is not always easy.

This Standothek uses specific examples to illustrate how different types of effect

colours should be repaired in order to achieve a flawless result, including car manufacturers' own colours, such as Alfa Romeo's Rosso Competizione or Ford's Blue Candy, as well as the increasingly popular matt finishes.

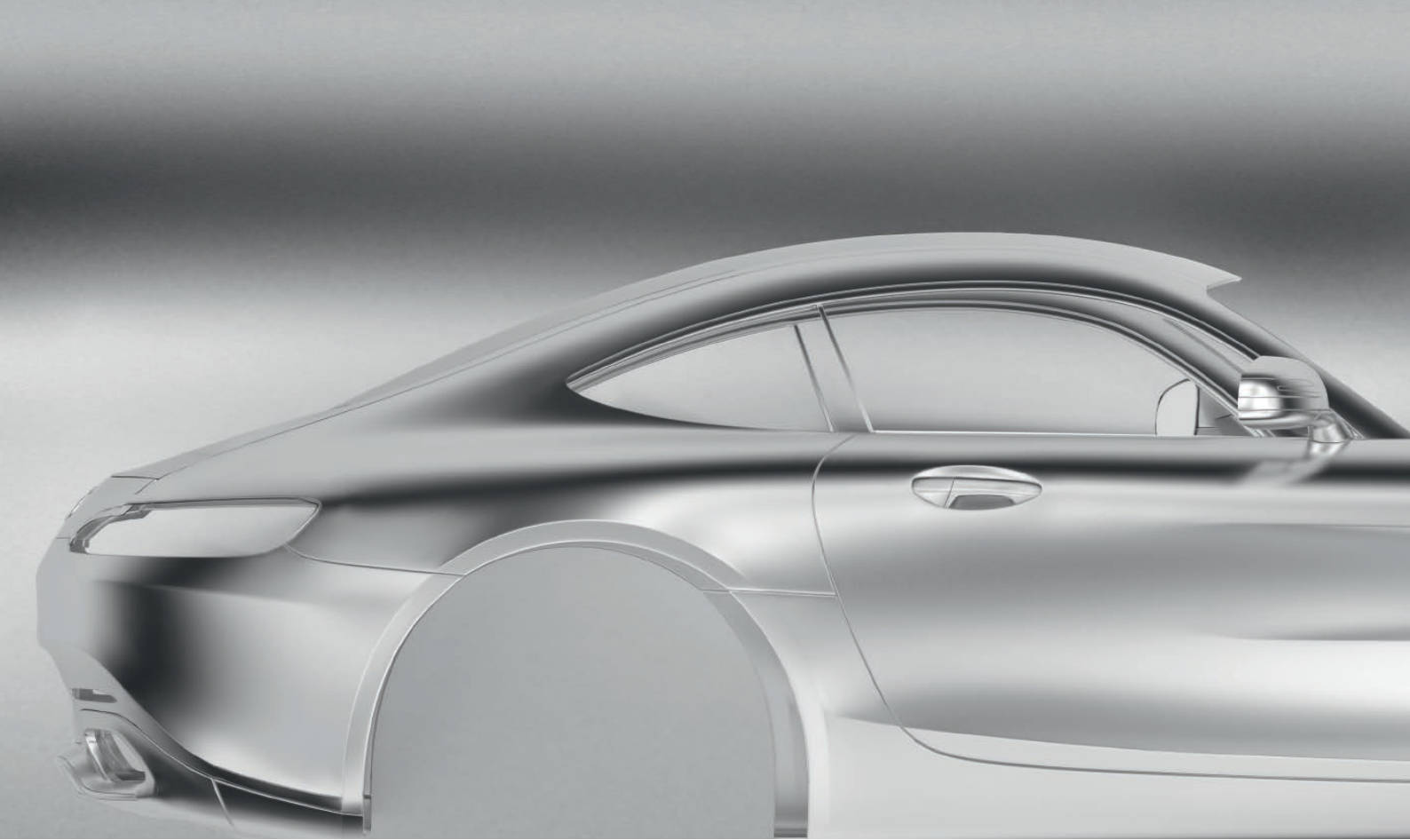
Generally, the following rule applies: when refinishing special colours, colour matching is of the utmost importance. The production and use of sample panels and sample panels provide reliability and ensure high quality repairs. With their help, and with a sophisticated refinish process, it is possible to achieve an impeccable match with the original colour. This Standothek shows how it's done.

It is also intended to help professional refinishers develop and improve their technical proficiency, but it cannot replace training courses or practical work experience.

Changes in procedures and errors are not considered, and the directions in our technical datasheets and on Standox paint systems apply. We reserve the right to change or to add to the information provided without prior notice or without any obligation to update it.



Harald Klöckner,  
Standox training manager,  
Europe, Middle East and Africa



## Liquid metal effect.

After Mercedes-Benz introduced its Alubeam colour to the market in 2007, other manufacturers followed suit, including Nissan with KAB Ultimate Silver and Porsche with Liquid Metal Silver and Liquid Metal Chrome Blue.

Liquid metallic surfaces look more like a gleaming metallic membrane than a standard paint finish. It's an effect that comes into its own on the bodywork of exclusive sports cars or high-end saloons. And it puts the skills of professional refinishers to the test, as it requires impeccable precision at every stage of the refinish process.

In Alubeam, for example, the silver is so fine that it is unforgiving of even the smallest imperfection. The aluminium flakes are noticeably thinner and flatter than in standard metallic paints so that they reflect light more intensely in order to amplify reflection levels. If applied correctly, liquid metallic finishes significantly highlight the dynamics of the vehicle contours, and the effect they achieve is not comparable to standard shades of silver.



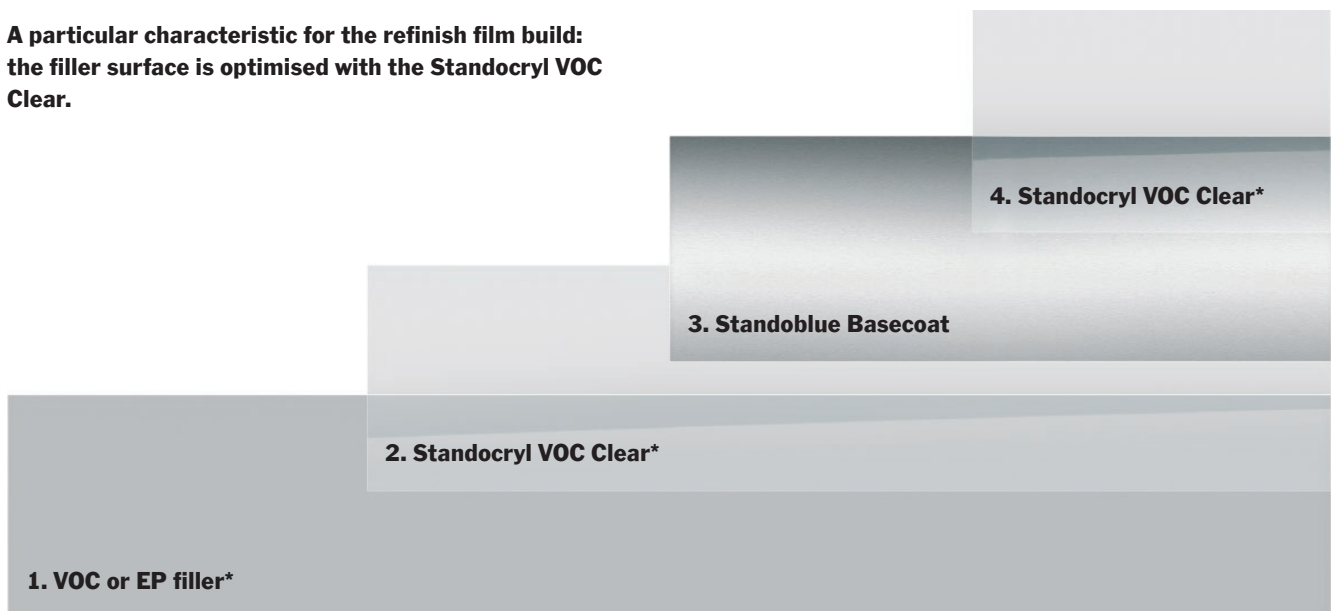
### Step 1: Preparation

Apply a Standox VOC or EP filler to the part that is to be refinished. Dry and sand the filler as usual in accordance with the relevant Technical Data Sheet. Apply a Standocryl VOC Clear\* to the sanded filler. Please follow clearcoat application and drying guidelines on the Technical Data Sheet.  
Tip: Dry the clearcoat well. You may need to allow for additional drying time.

### Step 2: Sand the clearcoat

Sand the surface of the clearcoat on the refinished part and on the existing old paintwork by machine with P1000 to P1500. Sand edges and corners by hand with P3000.  
NB: Be careful not to sand through.

**A particular characteristic for the refinish film build:  
the filler surface is optimised with the Standocryl VOC  
Clear.**



## Blending and fading in.



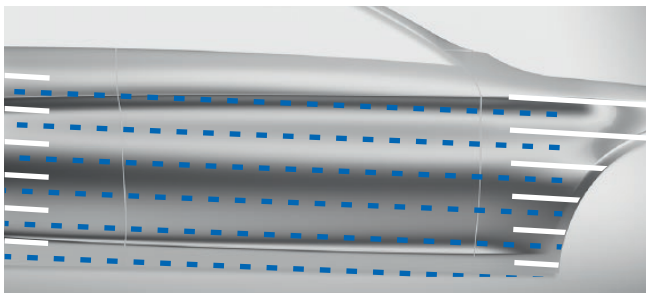
### Step 3: Apply Color Blend.

Apply Standoblue Color Blend/Standoblue Color Blend slow to the fade out area. The Color Blend area should extend up to approximately 10 to 20 centimetres from the area to be refinished.



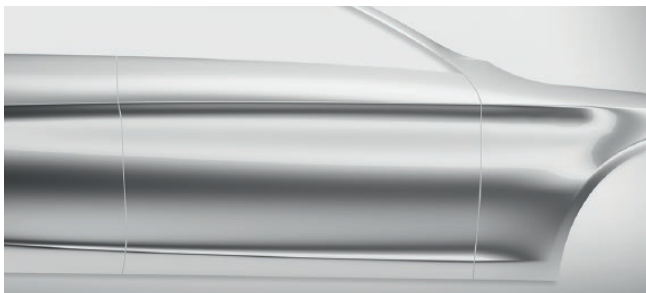
### Step 4: Blending in.

Getting Standoblue ready to spray: Mix Alubeam plus 50 % Standoblue Adjustment Additive Long. Apply the first spray pass right up to the edge of the still-wet Color Blend. This spray pass should almost cover the area to be refinished (filler).



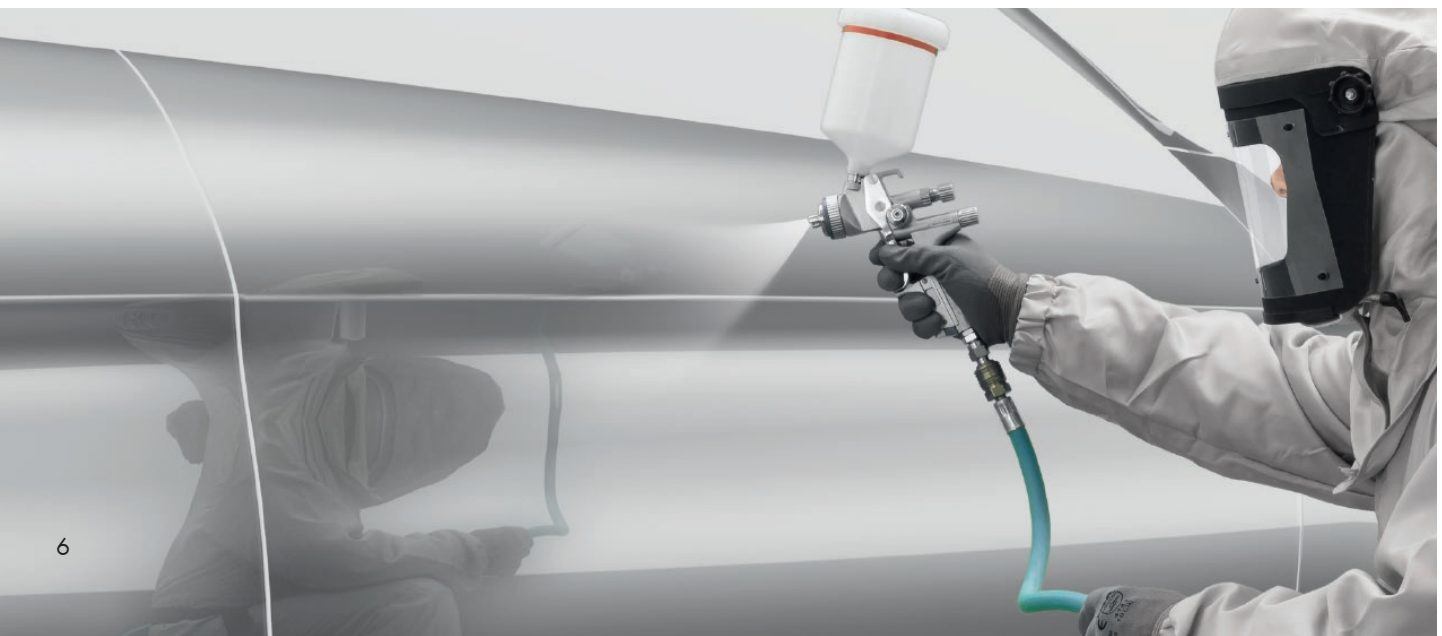
### Step 5: Fading in.

Apply the effect spray pass at a greater spray gun distance over the repair area and the still-wet Color Blend to blend it in. As long as Color Blend and the Standoblue colour are still wet, this step can be repeated if required.



### Step 6: Clearcoat

Apply a Standocryl VOC Clear to the entire area of the repair and then allow it to dry. Please note: please select the clearcoat in accordance with manufacturer approvals.



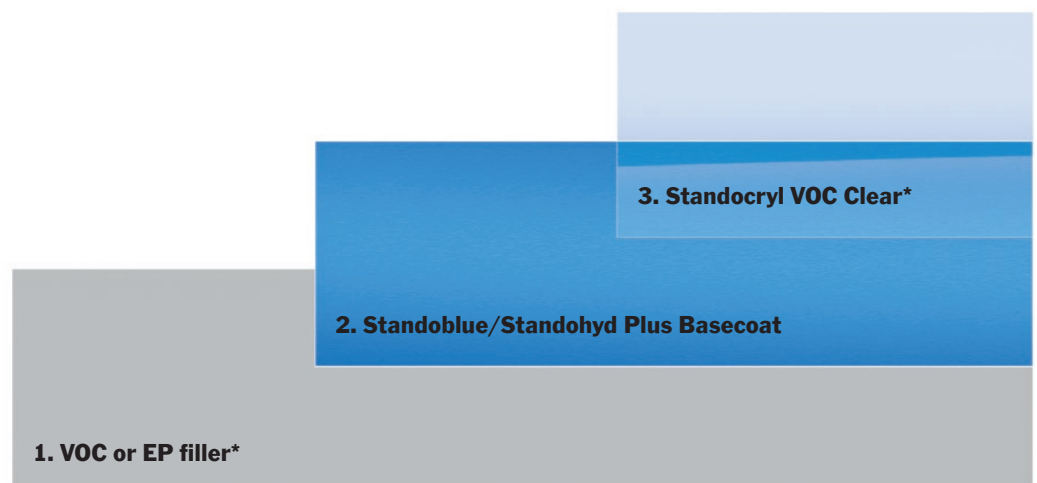


Two stage finishes with tinted clearcoat.

## Bright, gleaming show-stopper.

A Ford that rolls off the production line in Blue Candy is unlikely to suffer from a lack of attention. By contrast, a "classic" automotive blue is generally dark and unobtrusive, which is why it often found on luxury saloons. So the light,

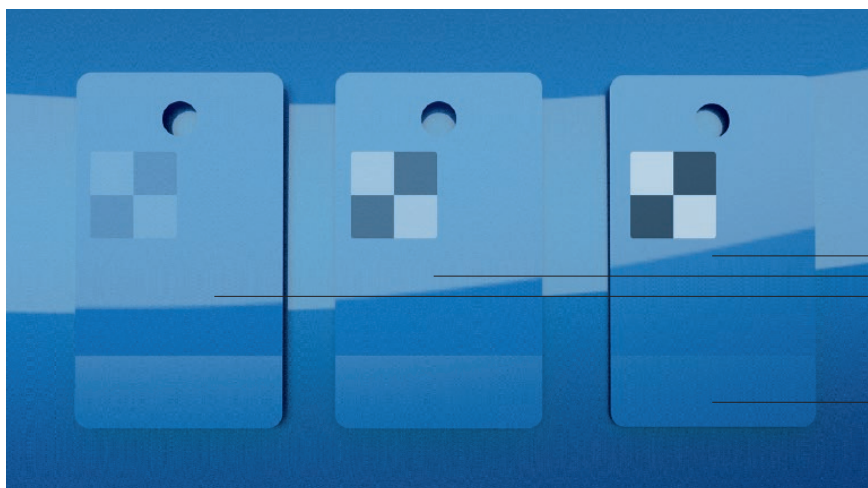
striking Blue Candy compared to that is a real show-stopper that looks amazing, particularly on the compact Fiesta. To retain this effect even after a paint repair, refinishers have to use a tinted clearcoat.





## Preparation of sample panels.

The number of spray passes, or the film thickness, of the tinted clearcoat is critical for the effect, brightness and brilliance of the final colour.



Different number of spray passes with tinted clearcoat

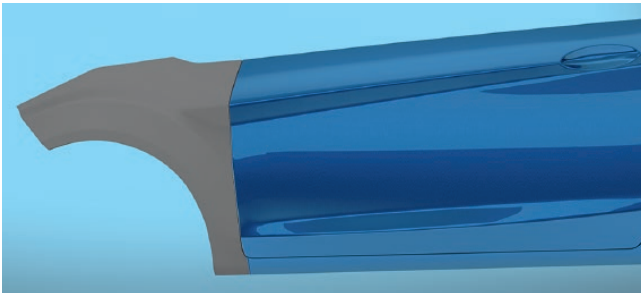
Basecoat without clearcoat to check basecoat application

### Step 1: Paint a sample colour panel

Spray a sample panel. Use this sample to determine how many spray passes of the tinted clearcoat are necessary to achieve the greatest possible match with the vehicle that is to be refinished. An old body part is ideal for this purpose.

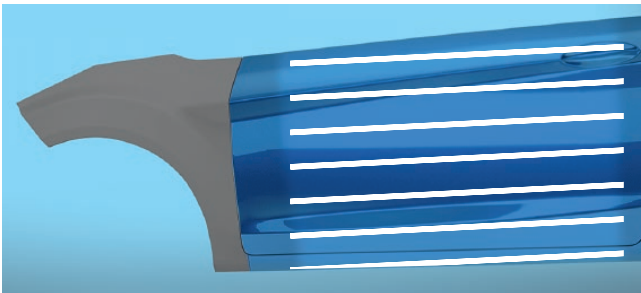


## Blending and fading in.



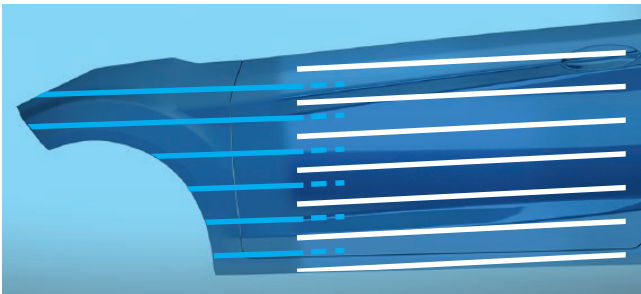
### Step 2: Sand filler and area to be refinished.

Prepare the area as usual. Sand the filler with P500 to P600, but the blend-in area with P1000 to P1200.



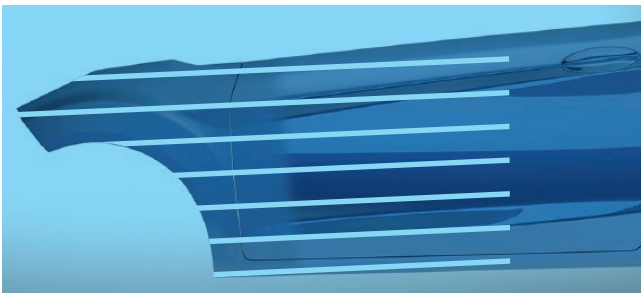
### Step 3: Apply Color Blend.

Apply Color Blend to the blend-in area on adjoining surfaces or onto the adjoining body part.



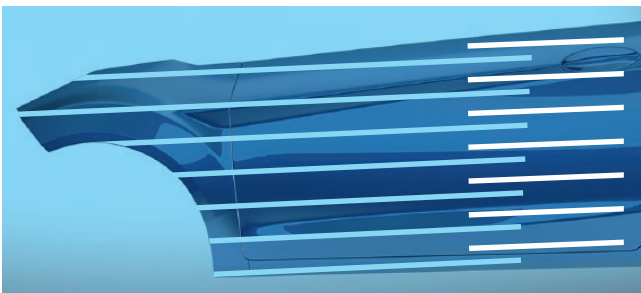
### Step 4: Basecoat application and flash-off.

Apply the Standoblue/Standohyd Plus Basecoat Blue Candy to the adjoining area or the adjoining part. Follow the guidelines in the Technical Data Sheet. Allow the basecoat and Color Blend to flash off sufficiently.



### Step 5: Application of the tinted clearcoat.

Prepare two spray guns (or two containers) with a tinted and a non-tinted clearcoat in order to be able to work rapidly. Use long hardeners or thinner combinations. Apply the tinted clearcoat to the part that is to be repaired and spray beyond the fade-out zone of the blended-in basecoat.



### Step 6: Blending into the non-tinted clearcoat.

Apply the non-tinted clearcoat to the remaining surface of the adjoining part and overlap into the still-wet tinted clearcoat. Dry according to the Technical Data Sheet.

Tip: Depending on which Standox VOC Clear is selected, it is advisable to apply an additional coat of the non-tinted clearcoat over the repair and the tinted clearcoat. This can be done either immediately or after sufficient flash-off time has elapsed.

Benefit: Polishing out imperfections such as dust inclusions and blend in zones of the clearcoat is easier.



# Multi effect in three coats.

Until a few years ago, 3-stage finishes were generally reserved for use on luxury cars, but that has changed. Today, these finishes are also used in large-scale production of small- and medium-sized vehicles – and they are very popular with car buyers.

Until recently, there were two types of effect paints. The colours of the first type were particularly luminous and showed great depth. These were initially mainly shades of red, but now they are generally available in all colours: red, blue, yellow, green, orange and many more.

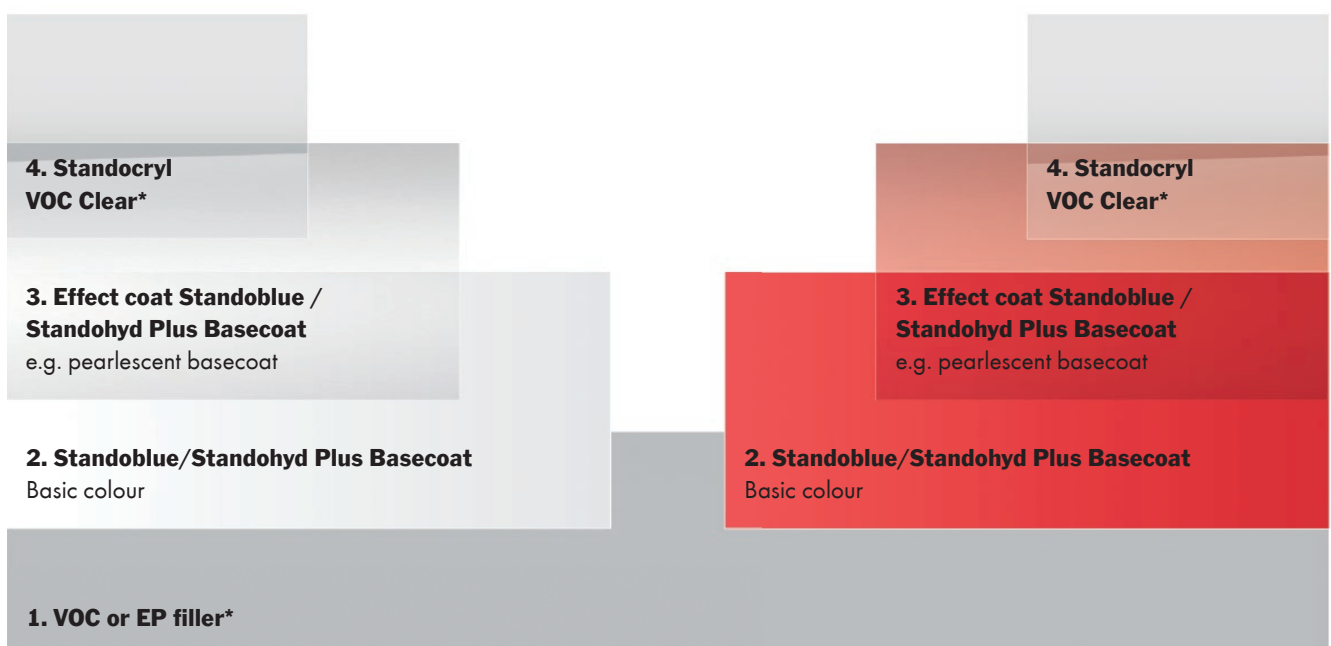
The second type of effect paints consists of variations of white. For a while, white as a car colour was completely out of fashion, but it has experienced a comeback. So it was only a matter of time before white effect paints – often also described as white metallic – made their way into large-scale production.

Typical representatives of this group are BMW's Mineral White or Mercedes' Mystic White.

The growing choice of colours makes their professional repair more complex for refinishers. In addition to identifying the right colour and colour variant, refinishers

also have to take account of the number of individual spray passes and how they were applied. In other words they need to pay attention to the film thickness and the resulting intensity of the effect coating. The use of sample panels is therefore indispensable. This is the only way to achieve an impeccable refinish result.

**The intensity of the effect is the result of the thickness of the effect layer.**



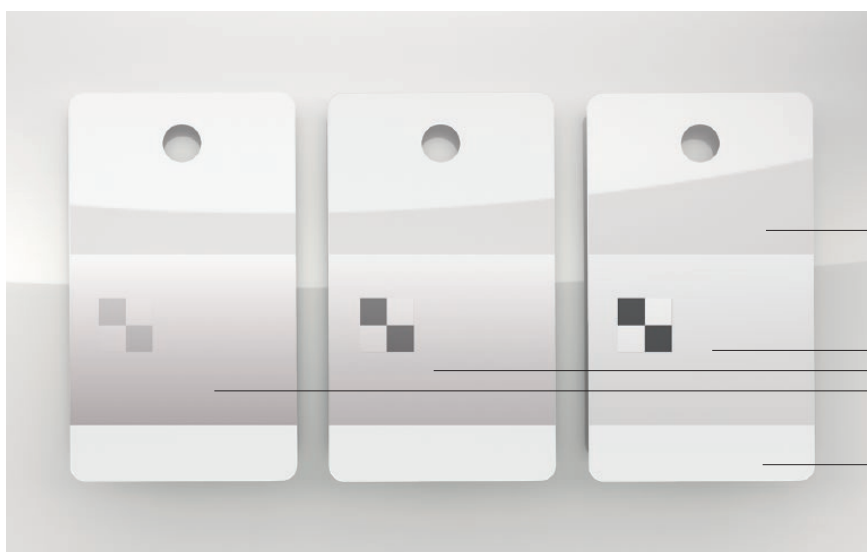
### 3-stage effect finishes



## Preparation of sample panels.

The production of three sample panels may take more time, but it is vital when analysing paint effects. With the help of opacity stickers, it is possible to check the intensity and the hiding power of the effect coat. This makes opacity stickers ideal quality control tools during the refinish process.

Searching for a paint formula, weighing and mixing are all carried out as usual. The spray samples should be prepared next, ideally on an old panel. Make a note of the number of effect spray passes on the back of the panel.



Effect spray passes with clearcoat

1 to 3 graded effect spray passes without clearcoat

Basecoat colour without clearcoat to check basecoat application

Together with the clearcoat, the number of effect spray passes, or rather the film thickness of the effect coat, is decisive for the intensity of the effect.



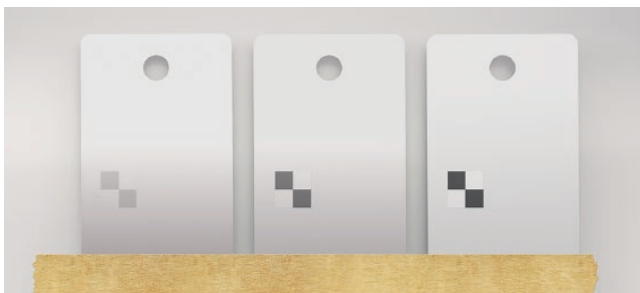
#### Step 1: Apply the basecoat colour.

Apply the hardened basecoat colour to three sample panels at the same time until you achieve hiding power. Use the opacity stickers to assess coverage. Allow the basecoat colour to dry thoroughly.



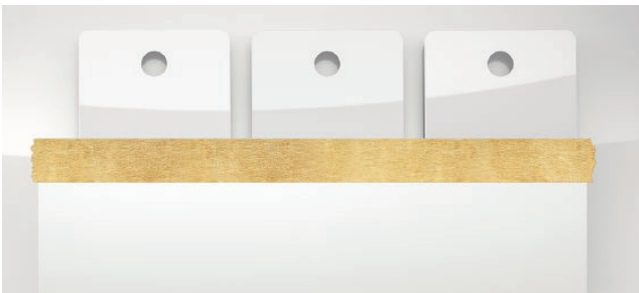
#### Step 2: First effect coat spray pass.

Stick a further opacity sticker onto each of the sample panels and mask a narrow strip of the basecoat colour. Also cover two sample panels completely. Apply the first effect coat spray pass to the sample panel.



#### Step 3: Second and third effect coat spray pass.

After the first effect coat spray pass, uncover one of the masked panels and immediately apply a second spray pass to both panels. Now remove the masking tape from the final panel and apply a further spray pass to all panels, without any flash-off time. Allow the effect coat to dry thoroughly.



#### Step 4: Apply the clearcoat.

Cover part of the effect paint and apply the clearcoat as usual.



#### Step 5: Compare the paint samples.

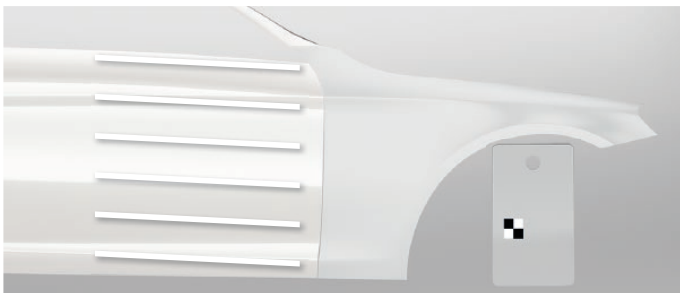
Compare the paint samples with the vehicle. Because of the graded number of effect spray passes, each sample will show a different effect. Choose the colour sample that most closely resembles or matches the vehicle for further work.

## Blending and fading in.\*



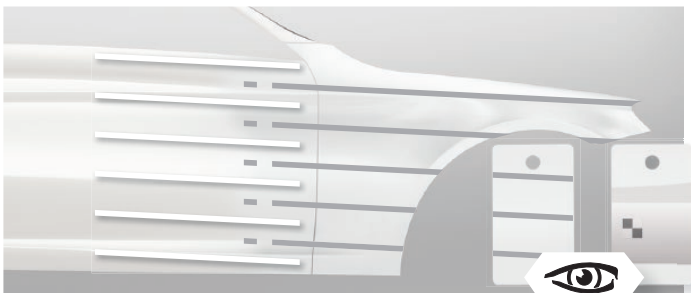
### Step 6: Attach a control panel.

In order to be able to check the entire refinish process with the help of opacity stickers, a further control panel needs to be painted at the same time as the vehicle. Attach the sample panel close to the repair area.



### Step 7: Apply Color Blend.

Apply the Standoblue Color Blend/Standoblue Color Blend slow adjusted with a Standoblue hardener in a closed pass fading out into the area surrounding the refinish zone and into adjoining areas.



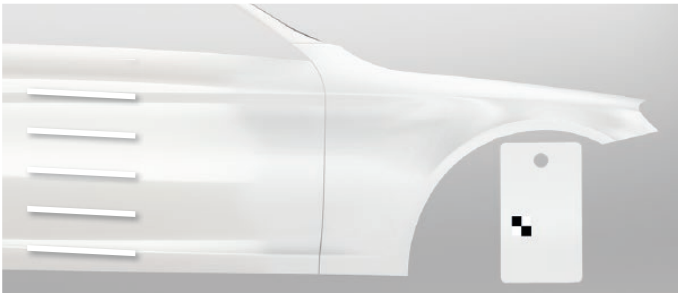
### Step 8: Apply the basecoat colour.

Apply the hardened Standoblue Basecoat colour to cover the damaged area and blend it into the still-wet Color Blend. Allow the basecoat and Color Blend to dry thoroughly (follow the Technical Data Sheet recommendations). Check the basecoat colour. Next, carefully remove dust and spray mist.

\*These images illustrate the refinish process using Standoblue Basecoat. When refinishing with Standohyd Plus Basecoat the main difference is the adjustment of the product. Detailed information for the refinish process for 3-stage finishes using Standohyd Plus Basecoat can be found in the relevant Technical Data Sheet.

### Remove dust and spray mist

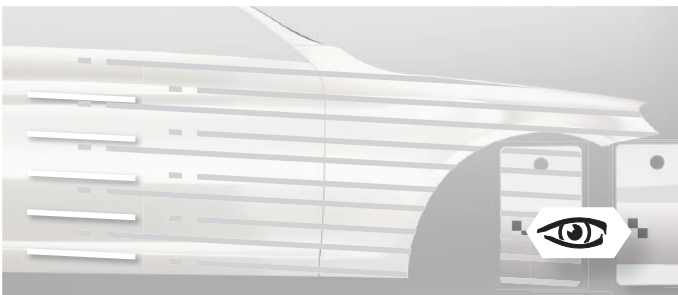
Before any paint job, it is vital to remove dust and spray mist. This should be done particularly carefully for elaborate multi-coat finishes as any impurity will be visible through the following translucent effect coat.



**Step 9: Repeat application of Color Blend.**

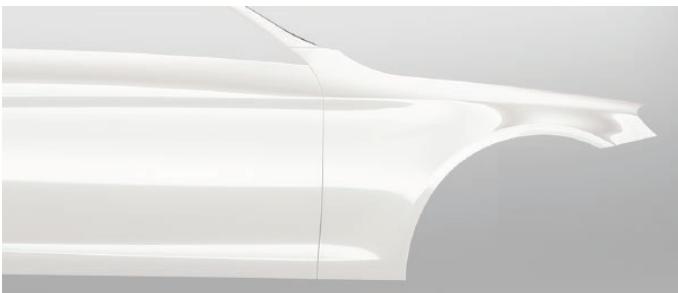
Attach a new opacity sticker to the control sample. Before applying the effect coat, unhardened Color Blend must be applied to the blend in area of the effect coat.

Tip: Do not allow Color Blend to dry.



**Step 10: Application of the effect coat wet-on-wet.**

The effect coat, such as a pearlescent basecoat or translucent basecoat, should be applied to the damaged area from the outside in. This step in the refinishing process must match the number of spray passes previously determined with the help of the sample. Allow the effect coat and Color Blend to dry thoroughly. Check the opacity stickers for matching coverage. If they both look the same, the clearcoat can be applied.



**Step 11: Application of the clearcoat.**

Apply a Standocryl VOC Clear to the entire refinishing area and allow it to dry. Note: Select the clearcoat in accordance with manufacturer approvals.

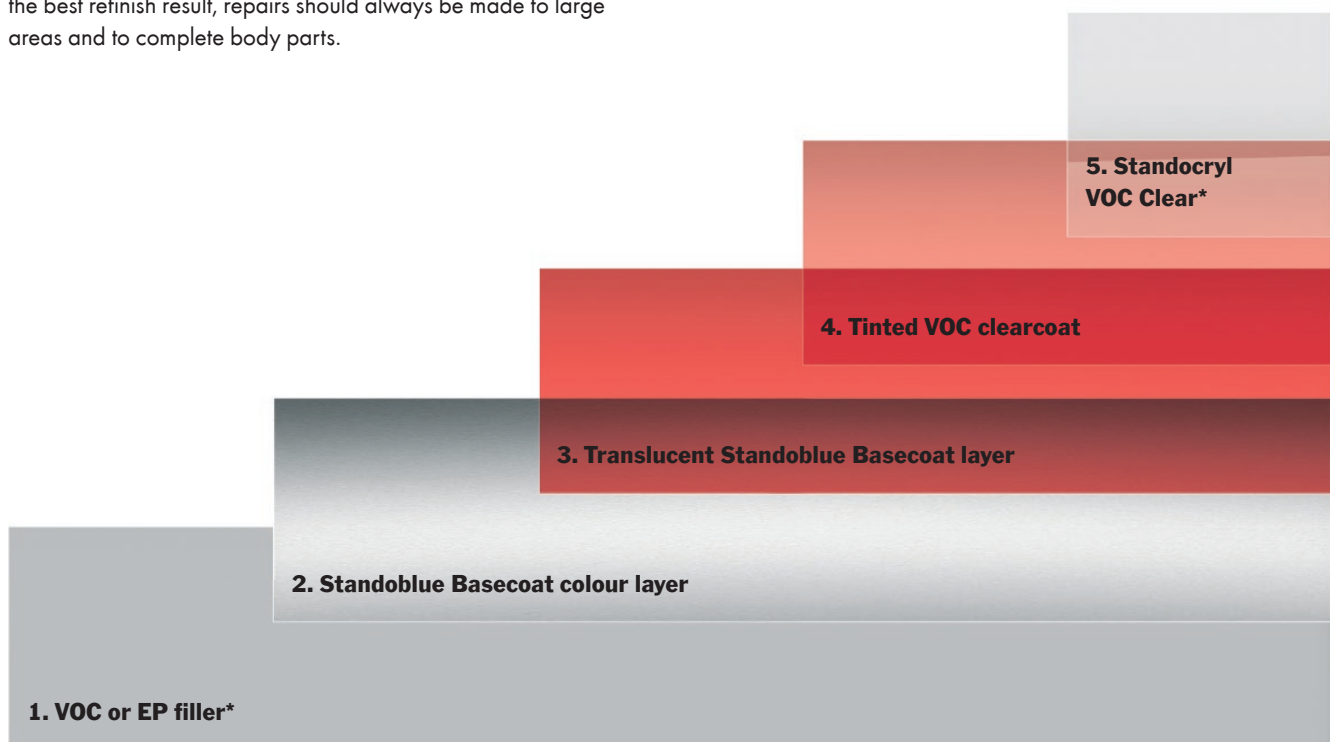




#### 4-stage finishes.

## A red with great depth.

The brilliant, intensely luminous red Rosso Competizione by Alfa Romeo is a challenge for any refinisher. This is partly because there are some markedly different colour variants, for example depending on whether the colour was used on the 8C model, on the Giulietta or on another model. And partly because Rosso Competizione is just generally quite demanding to refinish. Its depth, brilliance and intensity require a four-layer film build with two basecoat layers and an additional tinted clearcoat. To achieve the best refinish result, repairs should always be made to large areas and to complete body parts.



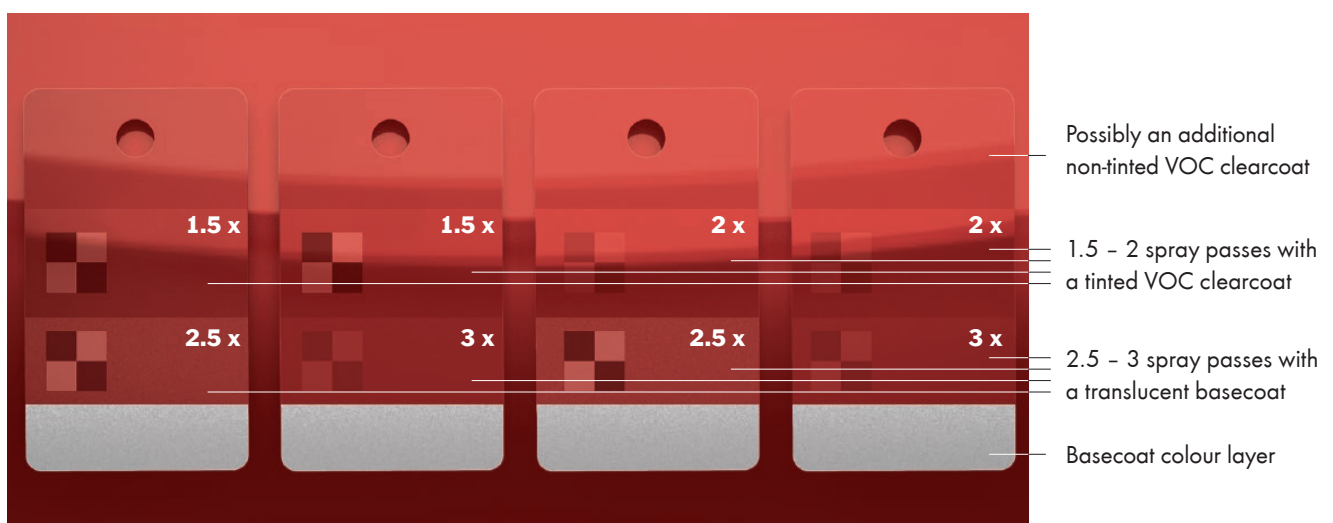




## Preparation of sample panels.

Paint samples should be prepared in such a way that both the second translucent basecoat layer and the tinted clearcoat can be judged separately. This makes it easier to check colour matching while painting. Formula search, weighing and mixing should be carried out as normal. Afterwards, the spray samples should be

prepared, ideally on an old body part. Make a note on the back of the panel of the number of spray passes used for the translucent basecoat and for the tinted clearcoat.



Two factors are decisive for effect and colour:

- Film build or number of spray passes for the second translucent basecoat layer
- Film build or number of spray passes for the tinted clearcoat

**4-stage finishes.**

**Produce four colour sample panels. Use an old body part in order to prepare the spray samples. That ensures that application matches the subsequent refinish job. Make a note of the number of spray passes on the reverse.**



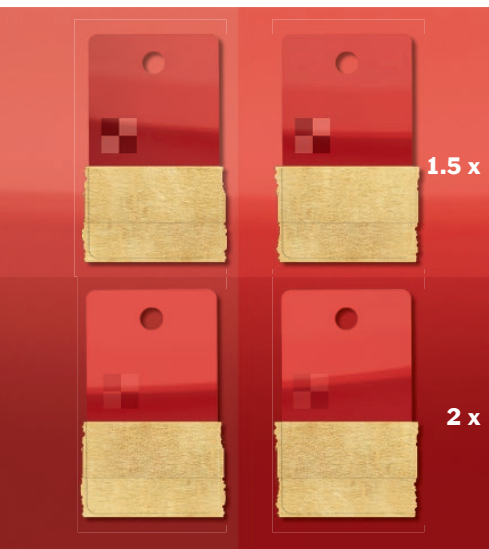
**1. Spray pass: Basecoat colour.**

Apply the first basecoat layer until you achieve hiding on all four sample panels. Make sure that Standoblue Hardner is used in the Stansoblue ground colour. Allow the basecoat to dry thoroughly.



**2. Spray pass: Translucent basecoat.**

Apply 2.5 (5 x 0.5) and 3 (6 x 0.5) spray passes of the translucent basecoat layer to the sample panels as shown in the illustration. Allow the basecoat to dry sufficiently.



**3. Spray pass: tinted clearcoat.**

Mask the top panels and apply half a spray pass to the lower two sample panels with the clearcoat tinted according to the mixing formula and allow them to flash off briefly. Remove the masking tape and apply 1.5 spray passes to all four sample panels.

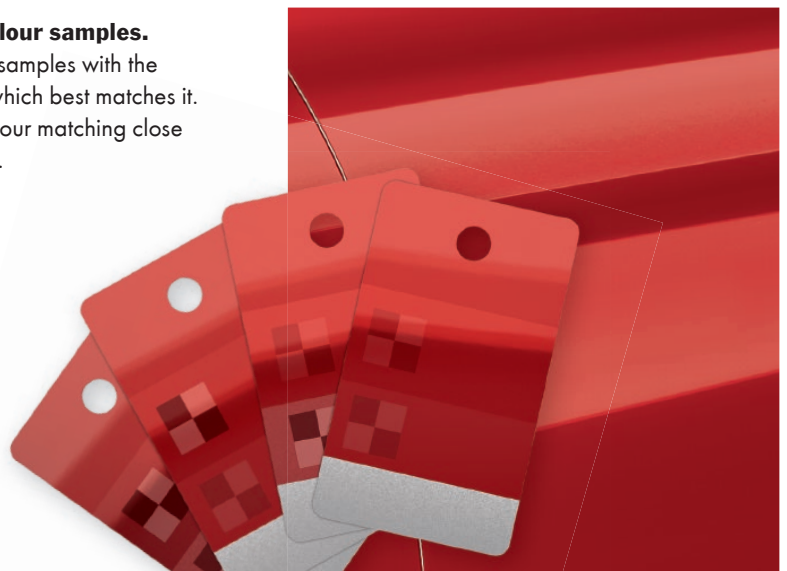


**4. Optional: non-tinted clearcoat.**

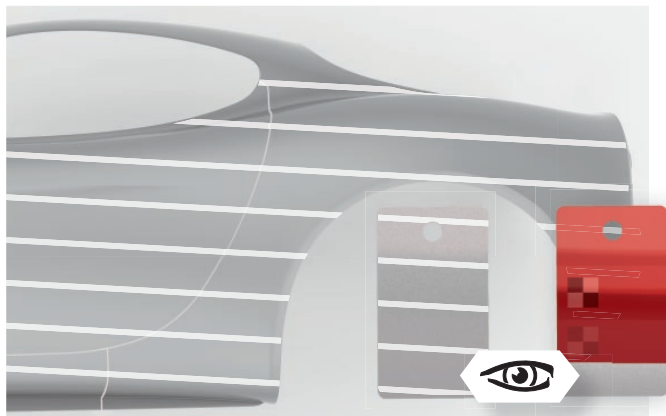
After the clearcoat has dried, cover a different part of the panel and apply another coat of non-tinted clearcoat.

**5. Compare the colour samples.**

Compare the colour samples with the vehicle and decide which best matches it. Important: assess colour matching close to the damaged part.



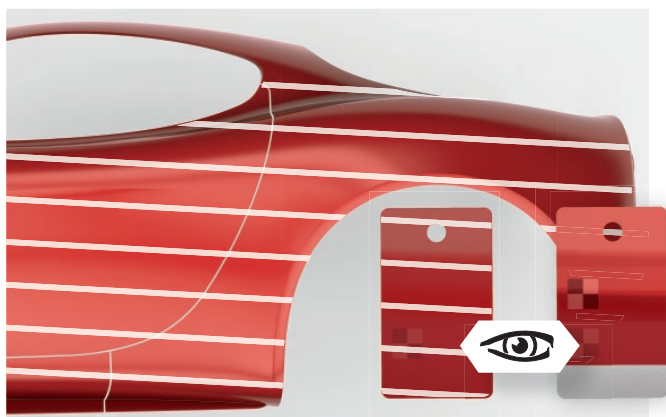
## Refinish process.



Follow standard preparation procedure: sand filler with P500 to P600.

### 6. Application of the first basecoat layer.

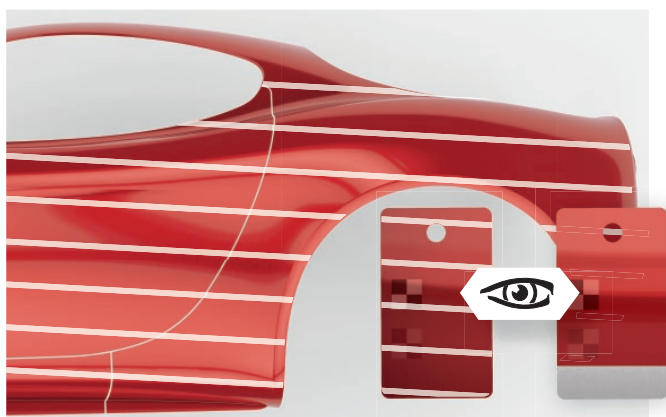
Apply the hardened Standoblue Basecoat colour to the damaged area until you achieve hiding. Avoid cloud formation. Dry and adjust the Standoblue Basecoat colour according to the Technical Data Sheet.



### 7. Application of second translucent basecoat layer.

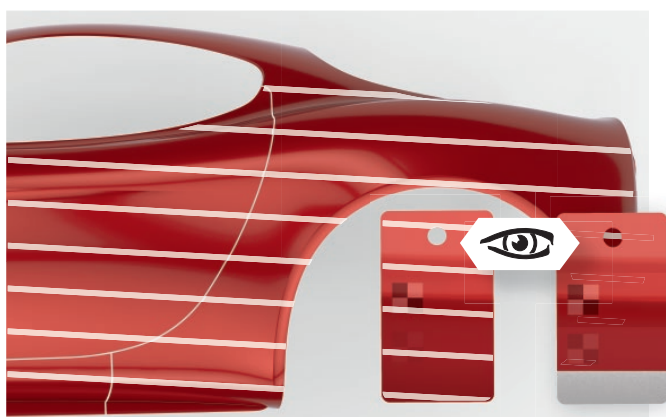
Apply the second coat of the Standoblue Basecoat colour according to the number of spray passes determined by the colour sample panel. Allow it to flash off or dry sufficiently. Check the opacity stickers for matching coverage. If they both look the same, the clearcoat can be applied.

Tip: Application in 5 or 6 half spray passes (a spray pass at a greater distance) results in a more even and uniform appearance than painting in 2.5 or 3 spray passes. It is vital to note: the technique used for spraying must be identical to the technique used for the spray sample!



### 8. Spray passes with tinted clearcoat.

Mix a Standox VOC Clear with Standox Clearcoat Additives according to the guidelines provided in Standown iQ or on the Internet. Adjust and dry the product as advised in the Technical Data Sheet. Apply the tinted clearcoat according to the previously determined number of spray passes. Check the opacity stickers for matching coverage. We recommend the use of the Standocryl VOC Xtra Clear K9560. Use the same clearcoat for the repair and the production of the spray samples.



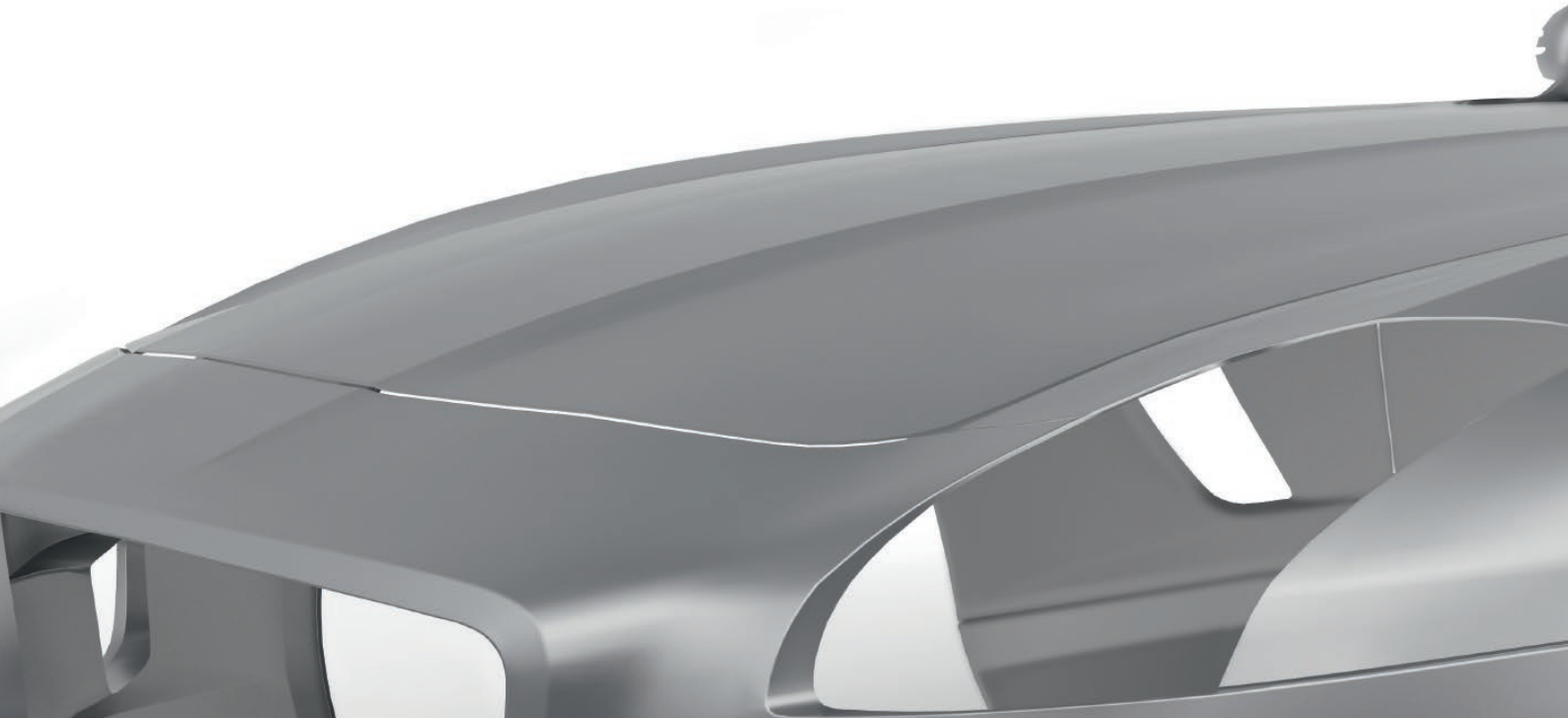
### 9. Optional: Spray pass with non-tinted clearcoat.

To optimise topcoat holdout the entire area can be carefully sanded (do not sand through) with P1000 once the clearcoat has dried sufficiently and a further coat of tinted clearcoat can be applied. This optional layer clearcoat will also make the possible sanding and polishing of blemishes easier.

# Matt finishes.

Vehicles with matt finishes are currently in fashion. A shimmering satin or dull matt surface gives a vehicle a special style and makes it stand out from the cars with gloss finishes. However, repairing matt finishes poses particular challenges for bodyshops. Repairs require precise preparation

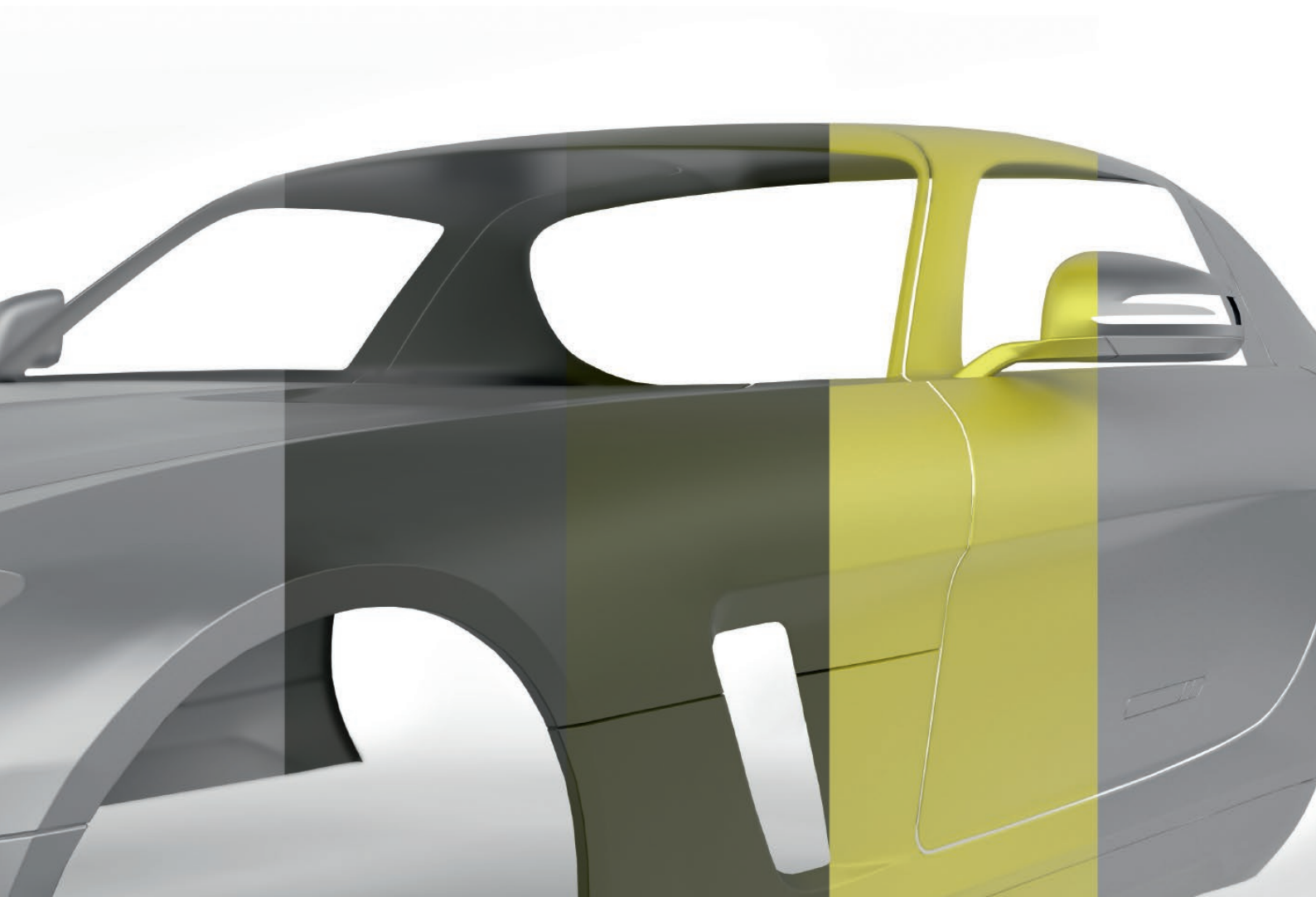
and considerable professional skill. Correcting potential errors also involves a significant amount of effort. What is common practice for high gloss clearcoats is out of the question for matt paint finishes. Re-sanding or polishing are not an option. Refinishers can only make one attempt.



**Ensuring there's no shine after the repair.**

**Even small repairs are a challenge when it comes to matt paints.**

With matt paints, it is not possible to polish out small scratches on one of side of the vehicle or fingernail traces from the handle recesses. That would result in shiny spots or streaks – visual defects on an otherwise evenly matt surface. MicroRepairs and blending in also are not suitable, as they would both mar the general appearance. To avoid this from happening, when refinishing matt paints, the entire body part is always painted. Depending on where the damage is it may even be best to repaint the entire side of a vehicle.



### **Care and precision – essential for an outstanding result.**

Refinishing matt surfaces is more time-consuming and requires more material than refinishing gloss finishes. But with the right preparation, the necessary care when working, and the right products, it is possible to achieve impeccable results. What matters more than anything else is working accurately. Even the smallest deviation from the mixing ratio between clearcoat, hardener, thinner and matting agent can lead to a discrepancy in the degree of matting, and the required volumes for a total or partial re-spray should be weighed out accurately using the scales. The use of Standowin or Standowin iQ makes precise measuring easy. Being completely accurate is also important for the documentation and potential later adjustments.

### **The effect of film build and drying on matt paints.**

Before starting to refinish matt paints, the effect of different film build on the appearance of the dried paint film should be considered. Application methods must therefore be adapted to the circumstances.

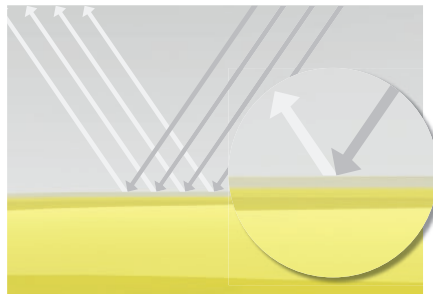
- Two “normal” spray passes may look different after drying, in some circumstances, compared to two “full” ones.
- Correct flash off is very important: in order to avoid “patchiness” the intermediate and final flash-off times given in the Technical Data Sheet should be strictly adhered to.
- Even the manner and type of drying method plays a role in the repair of matt clearcoats. Air and forced spray booth drying have a different effect on the gloss level. Finishes dried in the spray booth are generally slightly glossier than those that are dried at ambient temperatures.
- Infra-red drying should be avoided completely.



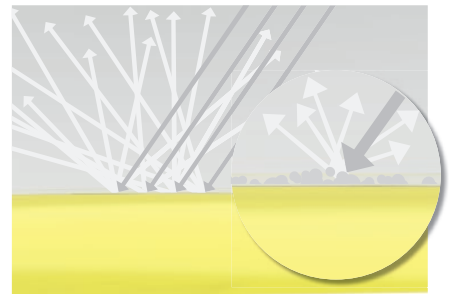
## Background knowledge/information.

### How are the perception of colour and the general impression of a matt surface created?

The colour impressions of an object are the result of nerve impulses in the viewer's brain. The human eye receives colour stimuli via the retina, relays them to the brain and in so doing, triggers a certain colour perception. That part of the light spectrum, which is not absorbed but reflected by the surface of an object, supplies the data that our conscious mind attributes to a specific colour. Reflection is also the reason why our eye perceives a surface as glossy or matt. Certain clearcoat additives increase the diffusion of light to such an extent that the surface appears matted.



Light reflection on a glossy clearcoat (simplified illustration, as effect pigments also have a scattering effect, although only in the basecoat paint).



Light reflection on a matted clearcoat (matting agents contain ball-shaped particles that have a strong scattering effect). Viewed at an angle of 60°, the reflection is at its most even. That is why the gloss level of car paints is measured and recorded at this angle.

### What influences matt colours?

The appearance and gloss level are influenced by:

- the coating thickness of each spray pass or the overall film build
- the way in which the paint is sprayed – for example with full or limited saturation, at a large or small spray gun distance, in straightforward lengths or in criss-cross pattern
- the intermediate or final flash-off time and the colour
- the temperature and type of drying (air or spray booth)
- the spray booth or paint temperature during application
- hardener and thinner

The degree of gloss increases with the use of short hardeners and thinners, with greater spray viscosity, thicker coats and forced drying.

The degree of gloss decreases with the use of longer hardeners and thinners, with a lower spray viscosity, reduced coating thickness and air drying. As humidity also has an effect on the end result, we recommend avoiding ambient air drying when refinishing matt paints!

These arguments show that the gloss level of a repair can only be determined by creating a spray sample!



## What you should pay attention to when refinishing matt paints.

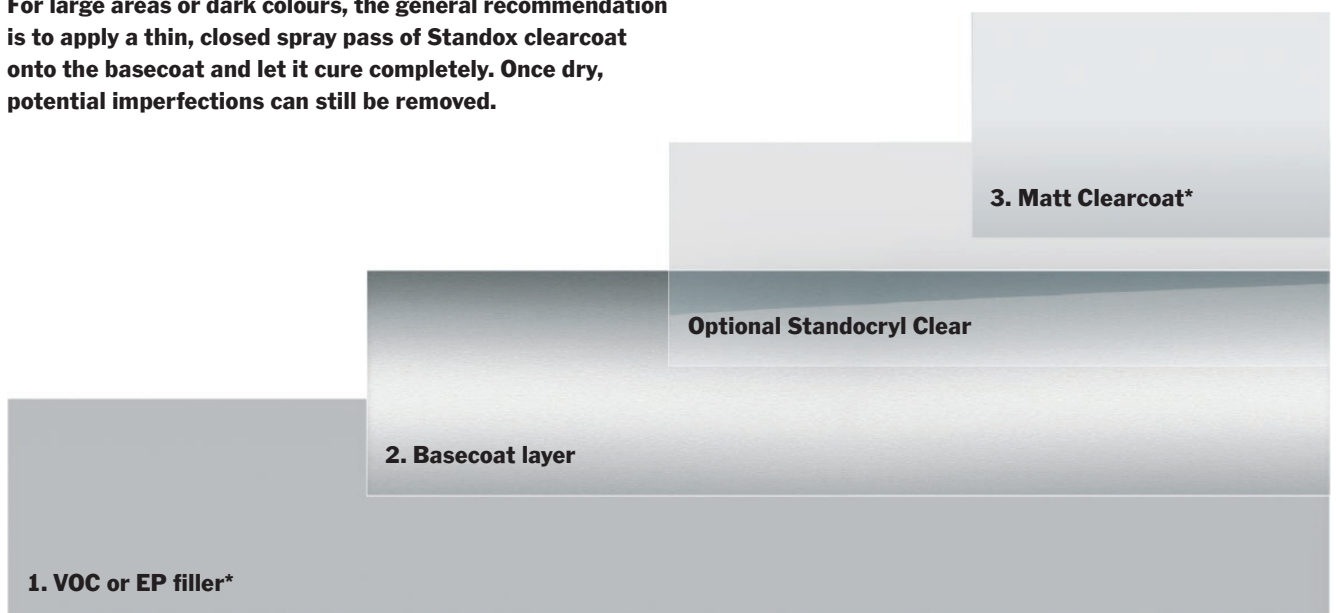
As there are many factors that influence gloss levels, it is not possible to give a pre-defined gloss level. There are measurable differences even for OEM finishes. In practice that means that it is not possible to achieve uniform results in a bodyshop where conditions change on a daily basis. A larger object should therefore not be refinished over several days and with different product build ups. To achieve a uniform appearance refinishers should paint in one go.

For technical reasons dust inclusions cannot be polished out of matt paints. Instead, they would require a complete re-paint including basecoat. Depending on the object, colour and desired gloss level we recommend finishing the paintwork with a gloss Standocryl VOC Clear.

All refinish paints will still contain traces of solvent once dry. With matt paints this means that the final degree of gloss is not quite attained immediately after drying. Measurements show that gloss levels can fall by up to five per cent within the first 14 days after the paintwork is completed.

Treat all fresh matt paints with the greatest care. Currently, damage to surfaces can only be reactivated by a total re-spray. Contamination, for example with grease, adhesives or sealants, must be removed immediately with solvent-free cleaner. Do not use any solvents!

**For large areas or dark colours, the general recommendation is to apply a thin, closed spray pass of Standox clearcoat onto the basecoat and let it cure completely. Once dry, potential imperfections can still be removed.**



## Preparation of sample panels.

### 1. First determine the gloss level, then the colour.

The gloss level has a significant effect on the appearance of the colour. Therefore first paint a spray sample with different ratios of Special Matt to VOC HS Clearcoat K9520. Begin with a mixture of 80:20, 75:25 and 70:30 (under certain circumstances smaller increments may be useful). You will find the precise formulas in Standown iQ. Then refine your selection of the colour (potentially produce variants). Pay attention to clear marking of the spray samples. Note: The spray samples must be prepared using the same spray and drying techniques as the refinish work.

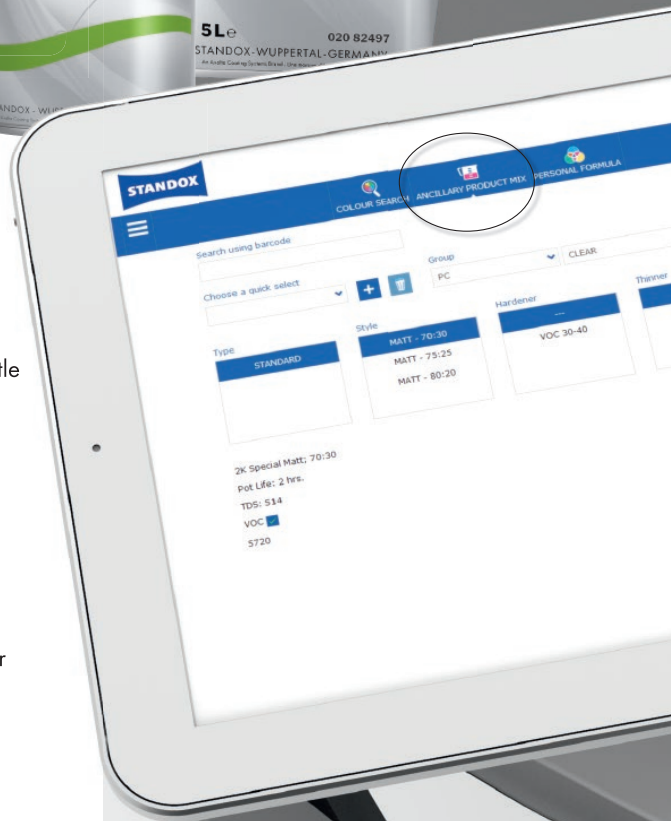


### Which mixing ratio produces what gloss level (E = units of gloss)?

- 70:30 > 25 E at a 60° angle
- 75:25 OEM recommendation, for example MB 23 E at a 60° angle  
Tolerance +/- 7 units
- 80:20 < 15 E at a 60° angle or < 20 E at an 85° angle

The formula for the right mixing ratio can be found in Standown iQ in the section title "ANCILLARY PRODUCT MIX" under products "SPEC MATT".

Standex Special Matt must be stirred thoroughly immediately prior to use. The clearcoat/Special Matt mixture must also be stirred carefully before adding the hardener. Just like other matting additives, Standex Special Matt can, in principle, be used with all Standex clearcoats. As the clearcoats all have different properties and mixing ratios, we recommend using the Standocryl VOC HS Clearcoat K9520 from the Standex refinish range. Only the VOC HS Clearcoat K9520 has the best basic properties for this particular type of application and is approved by the major car manufacturers for refinish work.





## Refinish process.

With a matt clearcoat, it is not possible to blend in sections. It is only possible to refinish complete body parts. These should be carried out by two refinishers who should avoid overlapping. All spray and drying processes should follow the same procedure used for the selected spray sample. Even small changes can distort the result. The more matt a matt clearcoat is, the more accurate the preparation, basecoat application and clearcoat use has to be.

### 2. Prepare and clean as usual.

Prepare for the entire matt clearcoat application, as blending in of the matt clearcoat with Smart Blend Plus is not possible.

### 3. Basecoat application and flash off.

Apply the basecoat just as you would a two-coat paint (also see page 9). Allow for sufficient flash off time afterwards.

### 4. Apply matt clearcoat.

Apply the first spray pass and let it flash off for five to ten minutes at 20°C. Then apply a second spray pass. Let the vehicle part flash-off a final time before force drying it for 10 to 15 minutes.

- Tip for the 80:20 mix: The risk of patchiness can be reduced with a larger nozzle such as SATA HVLP 1.5mm with 2.0 bar inlet pressure.
- Tip to reduce bonding: Increase the spray distance from the object and make the bands correspondingly narrower. For large horizontal surfaces such as the bonnet, apply the first and second spray pass at a displaced 90° angle if at all possible. The first and second spray pass should produce a classic criss-cross pattern.

### 5. Drying in the spray booth

Allow the painted vehicle part to dry for 45 to 50 minutes at 60°C to 65°C object temperature.



## Matt finishes.

# Care tips for matt paints.

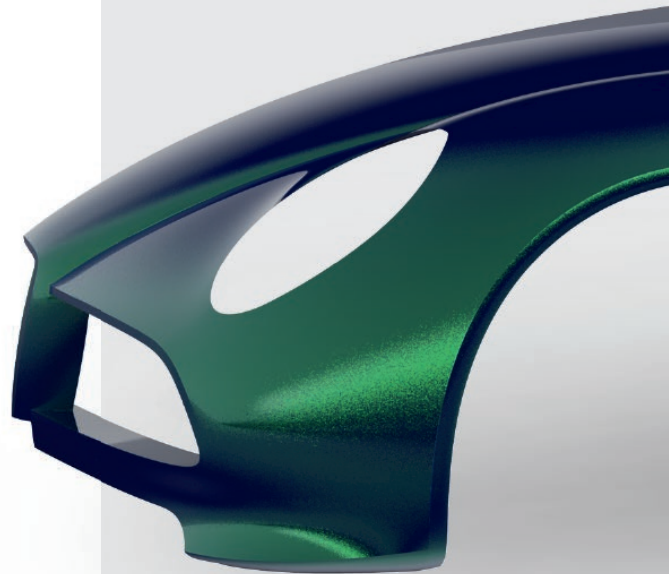


There are many, at times conflicting, recommendations concerning matt paint care. These listed here are the Standox findings; we cannot address questions relating to third-party products.

It is, in principle, possible to wash the car in a car wash. However, care programmes such as "gloss protection" should not be selected. Paint-protecting car washes are recommended as brush washes can, in the longer term, have a polishing, and therefore gloss-heightening, effect. The best and most protective cleaning method is to wash the vehicle by hand with neutral soap, plenty of water and a soft sponge.

Just as for traditional gloss finishes, bird droppings, dead insects and tree sap should be removed immediately. If that is not possible, soak the area concerned with water in order to remove the dirt without mechanical help if at all possible. Micro-fibre cloths are suitable for this. Tar stains can be removed by car owners with a silicone remover in conjunction with the standard commercial cleaning agents. Avoid rubbing the same place vigorously with strong pressure.

Car manufacturers don't recommend application of stickers, films or magnetic signs to OEM matt paints, and Standox recommends the same for refinish paints.



## Light-dark flop effect colours.

A light-dark flop in effect colours signals a change in colour depending on the viewing angle or light. The shape of the car body and base colour increase or decrease the difference. The light-dark flop makes the judging of paint samples harder for refinishers. Often, a colour may not seem to match under different viewing angles. That's why once again the selection of optimal light conditions and a good eye are the prerequisites for an impeccable result.





Standex GmbH · Postfach · D-42271 Wuppertal · Germany