Intended use

All common metallic, pearl, crystal and solid car colours can be mixed from mixing bases of the Mipa WBC 2-Schicht-Basislack-Mischsystem for refinish or complete car coatings by means of formulations. All Mipa WBC 2-Schicht-Basislacke (mixing bases) contain lead-free pigments. All pigments in use meet highest requirements in terms of lightfastness and weather resistance. To achieve highest colour precision it's necessary to shake these bases well before use (constant colouring power).Even a one-time withdrawal of mixing bases which have not been stirred sufficiently may destroy irreversibly the colouring power. Before placing a new basecoat can in the shelf, stir thoroughly manually or use a shaker, put the lid with spout and close tightly. Keep the cans closed as long as they are not needed. Generally, all mixing bases must be shaken or stirred regularly. Also the consistency of these bases, especially of the aluminium and pearl effect bases, must be controlled periodically. In the event of non-compliance, pigments may sediment and this leads to lumping and precipitation.

Recommendations:
1. Before every use, shake can thoroughly for approx. 20 - 30 seconds.
2. If a mixing base is not used for a longer period, the paint must be stirred manually before using.

Furthermore, the lid with spout must me checked before every use for paint residues as these may lead to contaminations. Always keep therefore the spout clean and tightly closed. Before applying, the colour must be checked by spraying a sample with clearcoat finish and compare it to the object. If necessary adjust the colour. Colour comparison can only be made with a sprayed (not applied by brush) dried sample under daylight conditions (or by means of a daylight lamp).

WBC base tinters for cars:

WBC A010 metallic extra fine / WBC A012 metallic very fine / WBC A013 brilliant metallic very fine/ WBC A014 brilliant metallic fine / WBC A015 metallic fine / WBC A016 brilliant metallic / WBC A018 metallic medium coarse / WBC A020 brilliant metallic coarse / WBC A030 metallic gold / WBC A031 metallic copper

WBC T100 green-gold / WBC T120 lemon-yellow / WBC R121 tinting yellow / WBC T140 yellow-orange / WBC T150 dark yellow / WBC T160 transparent oxide yellow / WBC T180 ochre / WBC T200 orange / WBC T202 orange / WBC T300 transparent oxide red / WBC T310 oxide red / WBC R311 tinting red / WBC T330 light red / WBC T340 light maroon / WBC T350 marron / WBC T360 marron-red/ WBC T370 rose red / WBC T380 red-violet / WBC T400 violet/ WBC R401 tinting violet / WBC T500 blue-violet / WBC T520 medium blue / WBS R521 tinting blue / WBC T540 blue / WBC T560 deep blue / WBC T580 turquoise-blue/ WBC T600 blue-green/ WBC T620 yellow-green/ WBC T900 white/ WBC T920 white plus/ WBC T950 black/ WBC R951 tinting black/ WBC T960 graphite black/ WBC T970 deep black/ WBC T980 super black

WBC effect tinters for cars:

WBC M10 pearl yellow/ WBC M20 pearl copper/ WBC M30 pearl red/ WBC M31 pearl red transparent/ WBC M32 pearl red fine/ WBC M33 pearl maroon/ WBC M40 pearl violet/ WBC M50 pearl blue/ WBC M51 pearl blue fine/ WBC M52 pearl blue-green/ WBC M60 pearl green/ WBC M90 pearl white extra fine/ WBC M91 pearl white fine/ WBC M92 pearl white/ WBC T910 satin white

WBC crystal tinter for cars:

WBC X010 crystal gold / WBC X030 crystal red/ WBC X050 crystal blue/ WBC X060 crystal green/ WBC X080 crystal copper/ WBC X090 crystal white

Spreading rate: --

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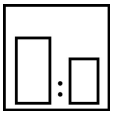
Processing instructions

Colour

--



Mixing ratio

Hardener	by weight (lacquer : hardener)	by volume (lacquer : hardener)
--	--	--

Hardener

for complete paintwork	for partial paintwork
--	--

Pot life

--

Thinner

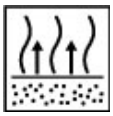
--

Spray viscosity

gravity spray gun	Airmix/Airless
--	--

Application mode

Application mode	Hardener	pressure (bar)	nozzle (mm)	spray passes	dilution (%)
--	--	--	--	--	--



Flash-off time

--

Dry coat thickness

--

Drying time

object temperature	dust dry	set to touch	ready for assembly	sandable	recoatable
--	--	--	--	--	--

Note

Storage: --

VOC Regulation: --

Processing conditions: from + 10 °C and up to 80 % relative humidity. Ensure adequate air ventilation.

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Processing instructions:

Put the lid with spout only if needed.

The application conditions have a decisive influence on the finish result and the shade of effect colours (metallic, pearl and crystal):

1. Do not apply the first ½ spray pass too thick and too wet to ensure fast flash-off and to avoid floating of aluminium pigments. Achieving the optimal opacity at the first spray pass is not required.

2. Apply the second coat (spraying up and down) evenly wet. Observe spray pressure or the material output to avoid clouding and floating. Generally, by applying the second coat, full opacity is achieved.

3. The third spray pass is a drop coat. Due to the application with reduced spray pressure (approx. 1.0 bar) and from a slightly larger distance to the object (approx. 20 cm) the coat flows evenly.

This drop coat application levels irregularities, such as clouding after the second spray pass. Furthermore, the drop coat ensures an optimal effect which is necessary to achieve the exact colour. This spray pass is indispensable for all effect and aluminium colours. Spraying with higher spray pressure or omitting the application of the drop coat lead inevitably to colour deviations. After the drying of WBC basecoat layers, the clearcoat can be applied. As optimal finishing coat, we recommend Mipa 2K-Klarlacke. To comply with the VOC-regulations, Mipa 2K-HS-Klarlacke must be used.

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Intended use

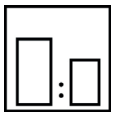
Water-based two-layer basecoat to coat completely or partially vehicles, motorbikes and commercial vehicles. Overcoating with Mipa 2K clearcoats results in a weather-resistant, high-gloss top coating. All colours are free from lead and chromate pigments.

Spreading rate: 7,0 - 9,0 m²/l

Processing instructions

Colour

Mipa Mix-System



Mixing ratio

Hardener	by weight (lacquer : hardener)	by volume (lacquer : hardener)
--	--	--

Hardener

for complete paintwork	for partial paintwork
--	--

Pot life

--

Thinner

10 - 20 % Mipa WBC-Verdünnung

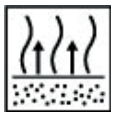
10 - 20 % Mipa WBS Beschleuniger

Spray viscosity

gravity spray gun	Airmix/Airless
22 - 25 s 4 mm DIN	--

Application mode

Application mode	Hardener	pressure (bar)	nozzle (mm)	spray passes	dilution (%)
gravity air gun (high pressure)	--	2 - 2,5	1,2 - 1,3	2,5	10 - 20
HVLP (low pressure)	--	2 - 2,2	1,2 - 1,3	2,5	10 - 20
HVLP / internal nozzle pressure	--	0,7	--	--	--



Flash-off time

5 - 8 min between coats

Dry coat thickness

15 - 20 µm

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Drying time

object temperature	dust dry	set to touch	ready for assembly	sandable	recoatable
20 °C	--	--	--	--	20 min (surface must dry to matt finish)
40 °C	--	--	--	--	13 min + 5 min cooling
air gun	--	--	--	--	7 min

Note

Storage: at least 2 years in closed original containers
Frost-free storage.

VOC Regulation: EU limit value for this product (category B/d): 420 g/l
This product contains max. 420 g/l of VOC.

Processing conditions: from +10 °C and up to 80 % relative humidity. Ensure adequate ventilation.

Drying times are reduced if the air speed increases and the relative air humidity decreases. In case of drying with air gun the drying time is reduced considerably. When drying with air guns the drying time is reduced by 50%.

Optimal processing conditions:
air temperature 20 - 25 °C
object temperature > 15 °C
relative humidity of air 40 - 60 %
air velocity 0,25 - 0,3 m/s

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Processing instructions:

Put the lid with spout only if needed. Shake thoroughly the bottles with tinters for approx. 20-30 s before every use.

Processing:

Check colour before application.

1st spray pass:
Apply a ½ spray pass semi-wet and flowing with a spray pressure of approx. 2 bar

Intermediate drying:
e.g. by means of an air gun until the WBC basecoat is completely dry

2nd spray pass:
Apply complete spray pass consisting of two half-wet coats ("up and down") keeping the same distance, spraying speed and spraying pressure as for the 1st spray pass.

Note: If the full hiding power is not yet ensured with the 2nd spray coat, apply a further spray coat after intermediate drying.

Drying:
7 min. by means of an air gun or
13 min. at 40 °C + cooling or
20 min. at room temperature

Drop coat only for metallic and effect colours:
the last spray pass of all effect and metallic paints is applied uniformly at a reduced spraying pressure of 1 bar. This drop coat is absolutely necessary to achieve colour accuracy. In addition, this drop coat can prevent irregularities, e.g. mottling.

Note: The colour shade of metallic and effect colours will tend to be "lighter" after the application of the drop coat. If the shade still appears too "dark" after the first drop coating, apply at most a second drop application to further lighten the shade.

After drying for approx. 5 min. at room temperature, apply the clearcoat.

Blending:

For blending difficult metallic and effect coatings, it is recommended to use Mipa WBC Beispritzlack.

3-coat application (Coating 1 + Coating 2 + clearcoat):

In this case use for Coating 1 Mipa WBC-Härter (hardener) to ensure an improved complete curing. The coating procedure is as follows:

Coating 1 = Mipa WBC Basislack + 5 % by weight or by volume Mipa WBC-Härter (first stir thoroughly the hardener in the WBC base paint), then thin by adding 10 - 20 % of Mipa WBC-Verdünnung (thinner) or Mipa WBS Beschleuniger (accelerator), intermediate flash-off time at least 20 minutes at room temperature.

Coating 2 can be applied without hardener. The final flash-off time before overcoating with clearcoat should be also at least 20 minutes at room temperature.

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Application of poorly hiding colours:

WBC colours, which have only a limited hiding power due to the system; e.g. bright white colours; are usually applied in thicker coats, which may result in significantly retarded through drying and in an increase of adhesion problems when applying the clearcoat. To avoid possible problems, it is recommended to add hardener to the basecoat as follows:

Mipa WBC basecoat + 5 % by weight or by volume Mipa WBC-Härter (hardener, stir first the hardener in the WBC base paint), then thin by adding 10 - 20 % of Mipa WBC Verdünnung (thinner) or Mipa WBS Beschleuniger (accelerator), final flash-off time: 20 minutes at room temperature prior to clearcoat application.

Application of colours that contains Mipa WBC Vicrom:

Due to the fact that Mipa WBC Vicrom has a very fine pigmentation, the substrate needs to be prepared to prevent visible sanding marks:

1. final sanding with very fine sanding paper P 800 - 1000.

2. apply beforehand a uniform coat with Mipa WBC 000, after approx. 5 - 10 minutes flash-off time at room temperature overcoat with WBC topcoats.

Processing at high air humidity and/ or low air flow:

To improve the complete drying it is recommended to use exclusively Mipa WBS Beschleuniger (accelerator) instead of Mipa WBC-Verdünnung (thinner). The quantities to be added remain unchanged. This recommendation applies to standard coating system as well as to 3-layer coating systems. Furthermore, specified coat thicknesses as well as intermediate and final flash-off times are to be observed exactly and ensure not to apply the clearcoat too wet. If doing so, a loss of gloss or subsequent matting can be avoided successfully. Mipa tinter WBC-T980 cannot be used in combination with Mipa WBS Beschleuniger, as this will cause it to thicken.

The optional addition of Mipa WBC-Additiv ETR (15 – 20 %) significantly increases the processing speed of Mipa WBC 2-Schicht-Basislack. The additive enables time-saving wet-on-wet painting without flash-off times between spray coats and is therefore particularly efficient for full or new paint jobs. In the case of high prevailing air humidity (relative air humidity > 60 %), the addition of 10 % - 20 % Mipa WBS Beschleuniger instead of Mipa WBC-Verdünnung enables an enormous increase in efficiency and performance.

A relative air humidity > 60 % usually leads to significant drying delays and performance losses in water-based paints due to the increased tendency of water vapor to condense. The addition of Mipa WBS Beschleuniger counteracts both impairments.

Notes:
1. With the particularly efficient wet-on-wet painting with Mipa WBC-Additiv ETR, the spray pattern is “wetter” than with the conventional spraying process. The painting method influences the color tone in nuances.

2. Mipa WBC-Additiv ETR and Mipa WBS Beschleuniger can also be used in combination.

Clear coating:
Mipa WBC base tinters are recoatable with all Mipa 2K clearcoats. To achieve the VOC-limit value use Mipa 2K HS clearcoats.

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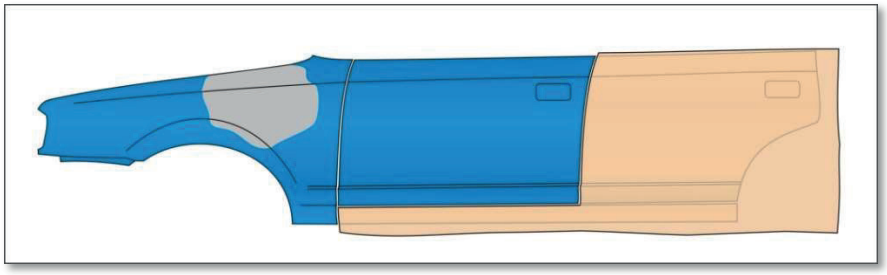
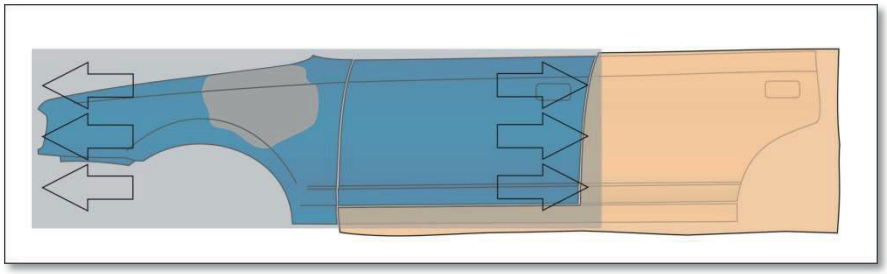
Mipa WBC: 2-Schicht-Beilackierverfahren

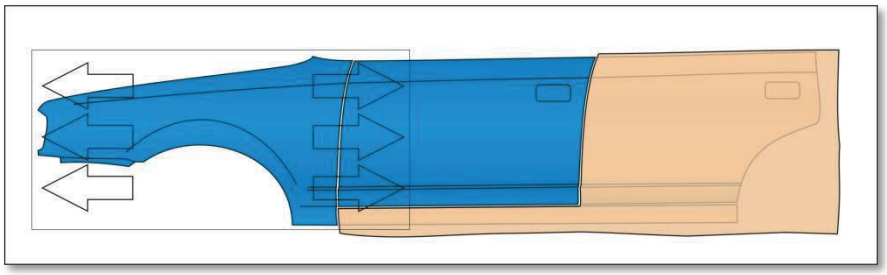
process step	paint system	+ hardener	+ thinner	spray passes
1. blending	**WBC Beispritzlack**	-	ready for use	1
flash-off time	approx. 5 minutes at room temperature			-
2. basecoat	**WBC**	-	**10 - 20 % WBC Verdünnung or WBS Beschleuniger**	2,5
flash-off time	at least 20 minutes at room temperature or approx.13 minutes at 40 °C			-
3. clearcoat	**Mipa 2K-Klarlacke**	-	-	-



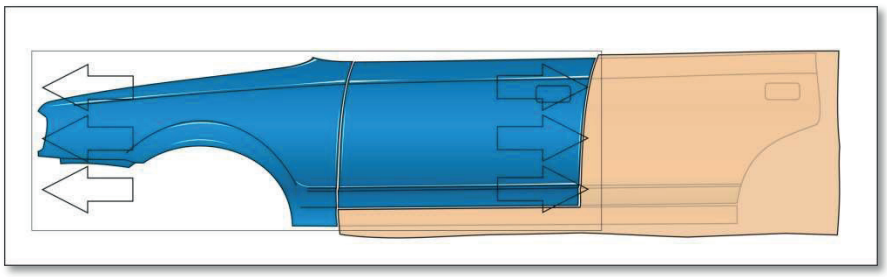
Initial situation:
Wing panel filled and sanded, ready to be coated, faultless door, sanded slightly with very fine grit, blending zone



Application of Mipa WBC Beispritzlack:
pre-coat the whole surface applying 1 wet closed film of Mipa WBC Beispritzlack



Application of Mipa WBC:
Apply an uniform covering layer on the wing panel fading out into the still intact existing finish on the front part of the door until the best possible colour and effect transition is achieved



Clearcoat application:
Apply the clearcoat on both wing panel + door

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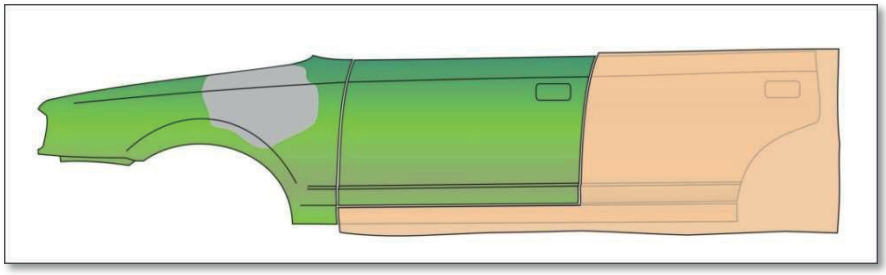
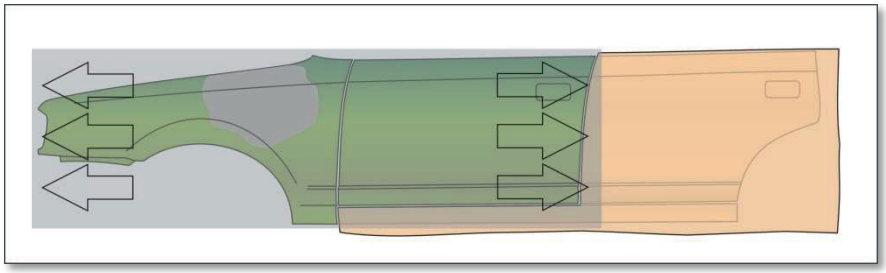
Mipa WBC: 3-coat blending Standard

process step	paint system	+ hardener	+ thinner	spray passes
1. blending	**WBC Beispritzlack**	-	ready for use	1
flash-off time	approx. 5 minutes at room temperature			-
2. Coating 1*	**WBC**	**5 % by weight or volume WBC-Härter**	**10 - 20 % WBC Verdünnung or WBS Beschleuniger**	2,5
flash-off time	at least 20 minutes at room temperature or approx. 13 minutes at 40 °C			
3. Coating 2*	**WBC**	-	**10 - 20 % WBC Verdünnung or WBS Beschleuniger**	1 - 2
flash-off time	mind. 20 Minuten bei Raumtemperatur od. ca. 13 Minuten bei 40 °C			-
4. clearcoat	**Mipa 2K-Klarlacke**	**-**	**-**	-

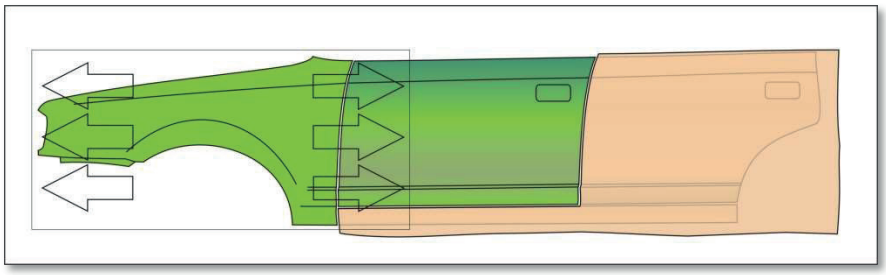
*Mix Coating 1 and 2 only right before application!



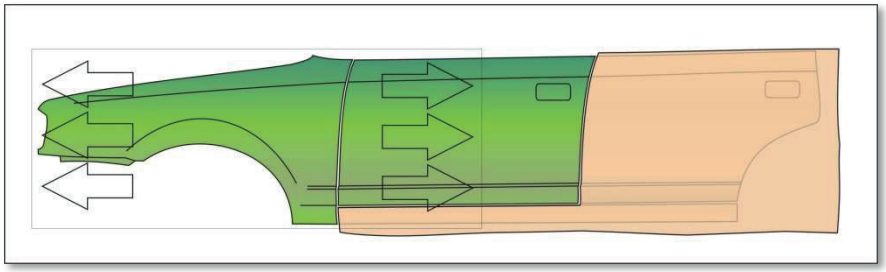
Initial situation:
Wing panel filled and sanded, ready to be coated, faultless door, sanded slightly with very fine grit, blending zone



Application of Mipa WBC Beispritzlack:
pre-coat the whole surface applying 1 wet closed film of Mipa WBC Beispritzlack



Application of Coating 1:
Apply an uniform covering layer of Coating 1 on the wing panel fading out into the still intact existing finish on the front part of the door



Application of Coating 2:
Apply 1 - 2 even spray passes on the wing and on the middle part of the door until the best possible colour and effect transition is achieved.
Important: The fading out zone of Coating 1 must be applied overlapping!

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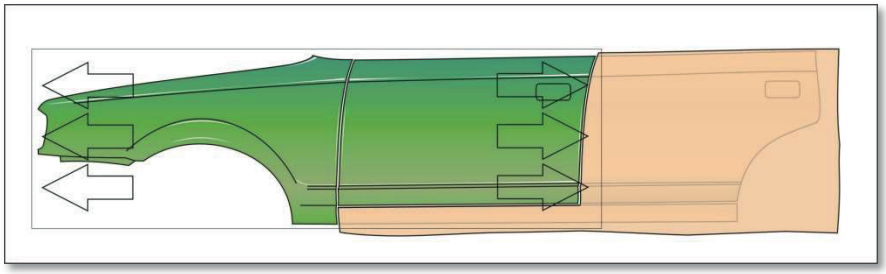
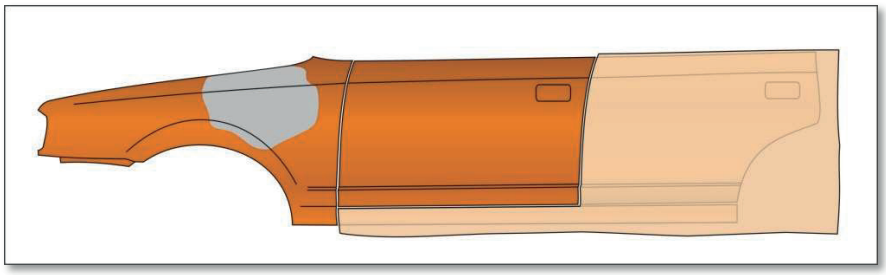
Mipa WBC: 3-coat blending Standard



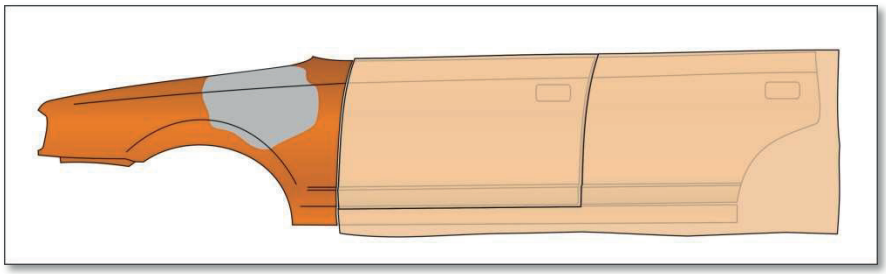
Clearcoat application:
Apply clearcoat on both wing + door

Mipa WBC: 3-coat blending, if Coating 1 has low hiding power

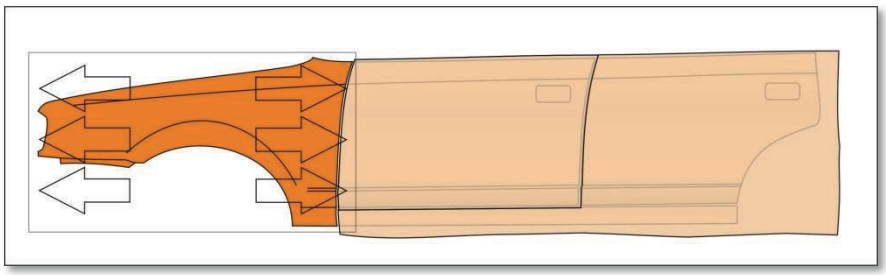
In this case, Coating 1 is applied first on the part to be repaired as covering coat. During this application the blending zone stays masked to avoid overspray deposits. Unmask thereafter the blending zone and apply Coating 1 feathering out.



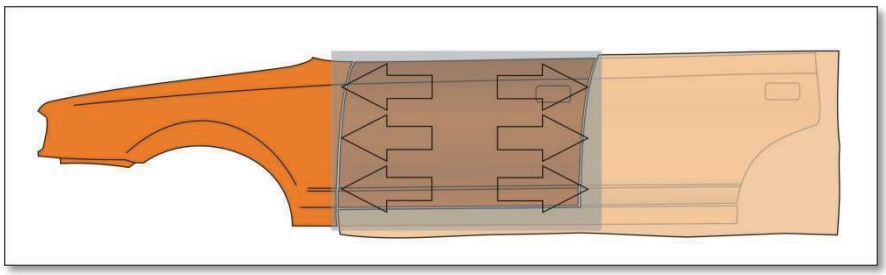
Initial situation:
Wing panel filled and sanded, ready to be coated, faultless door, sanded slightly with very fine grit, blending zone



Mask the blending zone:
In order to prevent excessive overspray deposits in the blending area, simply mask it.



Application of Coating 1:
First spray a covering coat of Coating 1 only on the wing.



Application of Mipa WBC Beispritzlack:
Unmask the door and pre-coat the whole surface applying 1 wet closed film of Mipa WBC Beispritzlack

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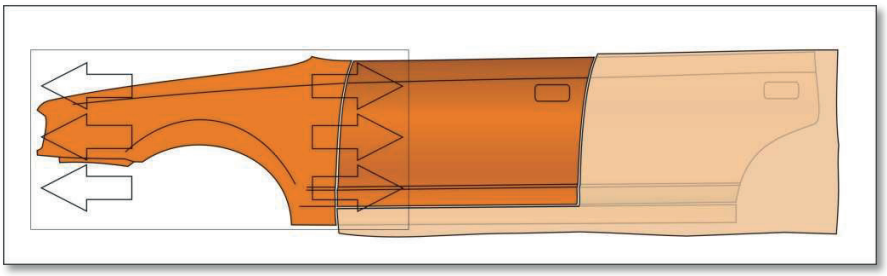
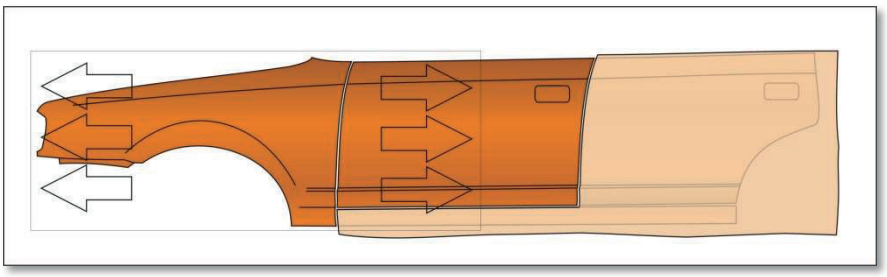
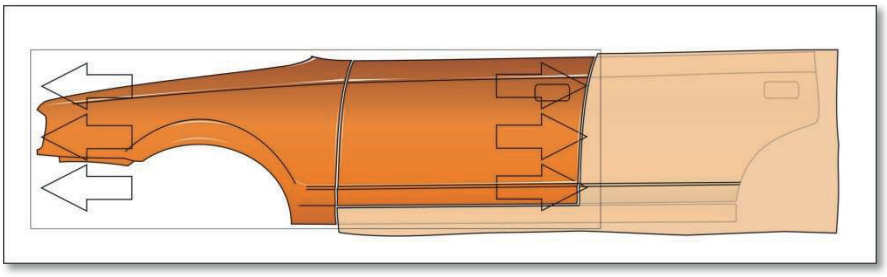
Mipa WBC: 3-coat blending, if Coating 1 has low hiding power



Application of Coating 1:
Apply an uniform covering layer of Coating 1 on the wing panel fading out into the still intact existing finish on the front part of the door.



application of Coating 2:
Apply 1 - 2 even spray passes on the wing and on the middle part of the door until the best possible colour and effect transition is achieved.
Important: The fading out zone of Coating 1 must be applied overlapping!



Clearcoat application:
Apply clearcoat on both wing + door

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