

A class of its own

Mipa OC Mixing System

SUCCESSFUL CAR REFINISHING



Responsible Care with Mipa OC: Responsible action for the Blue Planet Earth

The earth is the living space for all human beings. Its stocks are limited, the balance in the system of all living creatures is **sensitive and fragile**. Therefore the most important duty of this generation is to act responsibly and to preserve mankind and its natural or self-created environment. Only by protecting its resources the earth will also be able to serve future generations as the basis for living.

Mipa OC paint system has been developed according to this principle. Never before painted objects could be **protected so effectively**. Considerable savings in time and material as well as significant reduced solvent emissions and other poluting substances provide more care for users, energy sources and environment than any conventional paint system.

The small number of base tinters as well as the objective colour finding system **Mipa Color System** prove the ongoing innovation and progress of Mipa OC.

The paint system of the future is available today at MIPA.

Highest material efficiency

Responsible Care with Mipa OC:

: with even more opportunities



Mipa OC concentrated mixing tinters represent a complete 2K-acrylic paint system in **High-Solid-Quality** with less than 25 basic colours. These Mipa OC concentrated mixing tinters however have a second important function.

In combination with different colourless binders they form the basis to produce a number of paint qualities. Each Mipa Binder creates a **different paint system** with comprehensive coverage of the solid colour spectrum. All colours then also can be produced as 2K-acrylic qualites with lower solid contents at a very economical price level or in base-coat quality.

High paint quality ···· + low material consumption

Mipa OC with **less than 25 mixing tinters** offers the possibility to cover the complete colour spectrum of solid colours. This is reached without the need of additional products, thus minimizing investment in product stock.

The tinters in High-Solid-Quality VOC < 420 g / I are pigmented up to 100% higher than conventional paint systems. Because of the high covering power even with difficult colour shades 1 - 1 $\frac{1}{2}$ spray coats are sufficient. The complete respray of a passenger car therefore needs just an amount of paint from one liter onwards

mixed 2:1 with Mipa 2K-Hardeners. Up to 5% thinner may be added to adjust the viscosity if required. The total use of material is reduced significantly.

The progressive drying of Mipa OC produces an extremely smooth paint surface with perfect gloss. Already after force drying for 25 minutes Mipa OC is touch dry thus reducing both cabin operation time and energy consumption. **Mipa OC paint surfaces** are extremely resistant to yellowing and weathering. The very high solid content and the choice of exclusively first-class pigments and other high quality raw materials result in a surface resistance and hardness above average. At the same time **the flexibility of the top coat is still effective**.

The future of paint systems

·· Mankind and nature are worth caring for!



Increasing world population and industrialization threaten our natural basis for living on the earth. **Strict environmental laws** in many countries are in accordance with this situation and also commit paint producers and users to reduce all poluting substances.

Already significantly before validation of the European legislation for solvent reduction Mipa OC met the required VOC-limit of 420 g/ltr. The paint system contains by far less solvents than legally required. Because of this the combination with different hardeners and additives for an optimum adjustment to application conditions is possible. The **excellent covering power** reduces the spraying operations. Because of this and due to the virtual absence of thinner the solvent emission is minimized. All mixing tinters are lead-free and contain neither aromatic hydrocarbons nor heavy metals or silicon additives. **Efficient application and short drying times** furthermore reduce the energy consumption of the spray booth. Mipa OC in this area renders a high service to environmental protection. MIPA offers this service to all users worldwide to their own advantage.





The fast way into future

• • Mipa OC paint system offers highest coating technology. It is easy and reliable for all users! The quality advantages speak for themselves

- complete coverage of the solid colour spectrum with a professional and innovative colour documentation
- easy colour finding due to Mipa Color System and MipaMix SSP, therefore exact variant adjustment in case of older or weathered colour shades
- paint-in-paint system, no pastes, highest quality guaranteed
- optimum build and gloss
- superior covering power even with the addition of binder
- short drying process
- high resistance and hardness
- significantly reduced solvent polution for users and environment

This high quality also has effects on your financial profit

- more than 50% savings in material possible
- minimum addition of thinner
- significant time savings in application and drying
- always up-to-date colour documentation with optimum colour precision
- reduced stock, fast moving products
- increased market potential because of the possibility to offer also lower priced systems or industrial qualities with comprehensive coverage of the solid colour spectrum

The fast way into future:

Quality without compromise

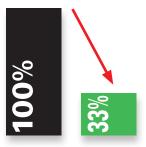
 50% material savings with Mipa OC against conventional MS-top coats. Therefore use Mipa OC already today and avoid having an oldfashioned system tomorrow!

Solvent emissions when using Mipa OC can be **reduced to 33%** of the emissions of conventional MS-systems.

MATERIAL SAVINGS



SOLVENT EMISSIONS

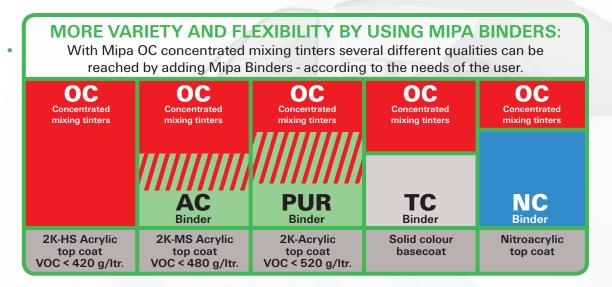


= Conventional MS-top coats

= Mipa OC

The whole world of solid colour paint application

Mipa OC concentrated mixing tinters in HS-quality (VOC < 420 g/ltr.) without addition of binder result in a superior 2K-top coat. But the **Mipa OC mixing system** also forms the basis for a multicomponent system. By adding Mipa Binders, quality, physical features and price of the paint may be changed and adjusted to technical or economical needs and demands. With every binder therefore a new mixing system with the same comprehensive coverage of solid colour spectrum is available.



The advantages of Mipa OC

Mipa Binders increase the operational possibilities of the Mipa OC mixing system. Like this the use of Mipa Binder AC and PUR enables the production of good value 2K-Acrylic top coats in MS-quality with VOC-contents of 480 g/ltr. and 520 g/ltr. for painting passenger cars and commercial vehicles. Mipa Binder TC produces solid colours in basecoat quality. With Mipa Binder NC a one pack top coat in nitroacrylic quality for the simple painting of vehicles and machines is obtained.

 The use of Mipa Binders is optional. For you and your customers there is absolute flexibility of choice which product will be used for what purpose. The additional volume of these clear components are worked out



in the computer mixing program. The same applies to matting agent additions. In this way multiflexible Mipa OC offers the possibility to either add or to reduce present systems in use to **any desired extent**. Each Mipa Binder with only one new product offers a completely new system, all binders together represent the whole world of solid colour paint application.

The safe way to exact colour shades

Finding the correct colour shade in the field of car refinishing in the past more and more became a "Magic Triangle", from which users of paint mixing systems couldn't escape. Colour codes on the car, colour cards and formulation only rarely matched all at the same time because the paint is changed by environmental influences or because too many variants are on the market. In order to control the huge amount of possible differences dealers as well as sprayers had to use a vast number of additional swatches and variant cards besides the actual main colour card.

Mipa Color System offers the solution, dissolves this "Evil Triangle" and ensures the perfect colour finding. Colour shades in the swatches are not sorted by car brands, but by colour groups. The differences between the colour shades shown often are on the edge of the visibility for human eyes. The colour shades are graded according to the following scheme:

SYSTEM

COLOR

MIPA COLOR SYSTEM COLOUR CODE 01690 - 500

Colour group Solid colour similar to RAL System

ΜΙΡΑ

Colour number

Colours with a system:

Precise colour measurement directly on the vehicle

Additional to the Mipa Color System the spectrophotometer MipaMix SSP is available. Through modern measurement technique the colour on the vehicle is compared with an extensive recipe database.





Colour matching made easy

Users now have several ways to the correct colour matching:



The colour on the car can easily be compared with the colour card because of the assortment of the **card according to colour groups**. Once you have found the correct colour shade, the Mipa Color System colour code (eg. 0 - 3 -) is given to the formulation computer by keyboard or by EAN-code reader. The correctly mixed formulation then matches exactly the colour shade on the colour card.

As usual, formulations also can be found according to original codes (eg. VWL 90 E) or colour names (eg. "diamond white"). **One or more formulations** are recommended by the computer, but to be absolutely sure before mixing, the colour card of the formulation should be compared to the car in progress. Then you will be able to react on colour changes, caused perhaps by weathering or similar influences.

Via a portable spectrophotometer the colour can be measured **directly on the car**. The corresponding Mipa Color System colour code is found computerized and is recommended. The database of **MipaMix SSP** is showing about 20-times more possible colours than a common colour documentation.

Perfect colour matching with Mipa OC

Advanced technology avoids colour claims



Due to the **latest technology** and easy-to-handle tools colour matching, the most important step for successful car refinishing is becoming easy and safe. Of course the soft- and hardware of colour matching system is adjusted regularly.

Even in between updates the formulations can be found on a daily updated version online. Besides this the cromatic sorting of Mipa Color System and MipaMix SSP is helping to find very exotic or even brand new colours easily. That's why your mixing system is always up-to-date and saves time for finding the colour as well as it avoids colour claims.



Successful Car Refinishing



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