The perfect finish for a classic Mercedes-Benz.
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Preface.

Protection against corrosion and weathering - this might sum up the benefits of our products. Yet our ambition is to do more than protect cherished vehicles and maintain their value. We want to be instrumental in preserving a culture and a way of life in conjunction with like-minded enthusiasts. For more than half a century our company has developed high-quality automotive paints responding to steadily changing market needs.

Nowadays, the proud owners of a classic Mercedes-Benz car are mainly interested in one thing: increasing the value of their vehicle by maintaining its original condition as far as possible. This is why you are well advised to contact a Mercedes-Benz Classic partner in your vicinity in order to ensure a perfect repair using original Mercedes-Benz parts.

To live up to our responsibility as a paint manufacturer, we have joined the Mercedes-Benz Classic Center in preparing this refinishing recommendation that ensures maximum originality while meeting today’s technical and environmental requirements.

Looking back on fifty years of tradition, we feel privileged to share this passion for fine automobiles with you.

Cordially yours,

Dr. Julio Salcedas
Standox Brand Manager
After World War II, alkyd resins became almost ubiquitous in Europe, given that they allowed the then state-of-the-art alkyd melamine resin baking coating process to be performed on the assembly line. Primer and filler were applied in a high-pressure spraying procedure, even though individual manufacturers already dipped their bodies-in-white by the late 1950’s. Nitrocellulose paint was used only for very expensive luxury sedans until 1963/64 in spite of the increased care required for this kind of finish. Alkyd resins are so chemically flexible and exhibit such a high quality that they have played a major role in automotive refinishing up until today. Soon after their introduction, they dominated the paints market in the field of refinishing too.

**New materials for paints.**
From 1963, polyester was the new material available to the paints industry. Polyester became indispensable particularly as a basis for stoppers, while nitrocellulose and synthetic resin stoppers became less important. The ingredients of topcoats changed, too. Alkyd resin paints were now mixed with isocyanates that accelerated drying even at room temperatures compared to alkyd melamine resin paints. Forced drying in a combined spray booth and low bake oven enabled the refinisher to save a lot of time with the new paint system, so that these booths soon became an economic necessity for bodyshops.

Between 1972 and 1975, the 2K acrylic polyurethane technology (acrylic base and polyisocyanate hardener) almost completely pushed acrylic resin paints out of the market. These 2K systems for the topcoat layer were characterised by a much higher chemical and physical resistance. The paints dried quicker and allowed dust inclusions and sagging to be polished out. From the early 1970’s, the paint manufacturers also developed a primer filler that protected against corrosion to make special corrosion protection paints superfluous.

In the 1980’s and 1990’s, paint finishing remained one of the most time-consuming processes in automotive production. Today, electrostatic rotating atomisers have been used in OEM coating to apply the filler and the topcoat to the prepared car body.

This saves a lot of material, because now 90 percent of the paint used is actually applied to where it belongs, on the automotive body.

Since the mid-1980’s, OEM coating has become almost fully automated and is today largely performed by robots. Only small areas remain to be painted manually: interior parts like the engine compartment and the trunk, hood and doors are sprayed with the gun first.

In the 1980’s, a number of hazardous paint ingredients were replaced as paint manufacturers increased their environmental awareness. In addition, the share of organic solvents in the paints was reduced, because these substances are blamed for causing summer smog and other nuisances. 2K acrylic paints were developed further into low-solvent high-solids, i.e. paints with a lower solvent content and a higher share of solid particles. The mid-eighties also saw the launch of the first waterborne paints, which have since become the standard type of paint both in OEM coating and refinishing.

**The vehicle coating process.**
The development of automotive refinishing.

Expertise and craftsmanship are key to an excellent refinish.
Refinishing classic Mercedes-Benz vehicles.

Classic vehicles with the legendary star on the bonnet are recognised as genuine works of art nowadays, but in contrast to precious paintings, they require regular, careful and in particular professional care or restoration. This is the only way to maintain their value or even increase it over the decades.

The most striking feature of vintage cars is of course their body. It needs to be restored and maintained using state of the art methods so the owners can enjoy their vehicles for a long time to come.

The older the paint on a vehicle, the simpler its structure. As a general rule, an original vintage paint coat consists of a single layer of so-called nitrocellulose paint. Automakers have long stopped using these paints. In the 1960’s, they were replaced by paints on acrylic bases with a higher gloss retention and solvent content. These paints have meanwhile been replaced by waterborne products.

This is why the Mercedes-Benz Classic Center in Fellbach and Standox have jointly prepared a manual for refinishers. The refinishing process described there defines the standard for high-quality vintage car refinishing as recommended by the Mercedes-Benz Classic Center.

Before refinishing a vintage car, the owner has to decide jointly with the refinishing expert whether it is to be a renewal, a partial refinishing or a complete respray. If the owner desires a renewal or a partial refinishing, the refiner first has to determine the kind of paint that the vehicle is finished with. Rubbing the surface briefly with a cloth soaked in cellulose thinner makes things clear: the color of a nitrocellulose paint or a thermoplastic acrylate paint (TPA) comes off very strongly in the process and becomes a little tacky.

TPA paintcoats are very soft. Refinishing with a very hard two-component acrylic paint is not possible, as there would be tension between the two layers of paint. This is why the old paint coat must be removed down to the bare metal.

Synthetic resin paints that were common until the 1980’s cannot be coated with modern acrylic paints as they release solvent for a long time. Here, too, the old paint coat should be removed completely. If a vehicle has had several total resprays or refinishes, it is also advisable to remove all layers by sanding or stripping. Otherwise, corrosion under the paint may go unnoticed.

Only modern paint systems are permissible today.

Nowadays, modern automotive coatings comprise up to six layers. In recent years, the focus in development and application was on reducing the solvent content. January 1, 2007 saw the coming into force of the new EU solvent directive that defines stricter limits for the emission of solvents into the environment. Now refinishers are obliged to use only those materials that comply with the new regulations.

Standox offers a state-of-the-art waterbased refinishing system, Standohyd, as well as an accurate color measuring device, Genius. This combination allows the reproduction of original shades with modern pigments, which are often much more light-fast and -stable than the old pigments.

Determination of the shade with the Genius® color spectrophotometer

Restoring a classic with modern paint systems?

Younger vintage and classic cars display the code of the vehicle as a combination of numbers and/or letters on the type label.

In case of older cars with traces of the original coating, only an analysis using the color spectrophotometer will give reliable information.

Finding the right shade.

Determining the right shade is a particular challenge in vintage car refinishing. After all, there are more than 45,000 OEM coatings worldwide, and another 600 are added each year. Moreover, the paint changes over the years due to environmental influences.

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Restoring a classic with modern paint systems?
The Mercedes-Benz Classic Center – Life-long Service.

All customers of the Classic Center benefit from the latter’s direct access to all the relevant resources of the company.

This includes not only the comprehensive documentation in the Corporate Archives but also the facilities in Research and Development, the plants’ expertise in prototype manufacture and the latest technical possibilities for reproducing true-to-the-original parts.

Ever since its foundation on May 19, 1993, the Mercedes-Benz Classic Center in Fellbach near Stuttgart has been the port of call for owners of classic vehicles from the Daimler, Benz, Mercedes and Mercedes-Benz brands – on a global scale.

The workshop of the Mercedes-Benz Classic Center not only looks after the historical and more recent automobiles displayed in the Mercedes-Benz Museum. The staff’s unique technical and historical expertise is also made available to all customers of the brand who wish to retain their Mercedes-Benz cars in their original condition.

These factors contribute towards retaining the originality and historically authentic engineering of classic cars – the prime guarantor being the workshop of the Mercedes-Benz Classic Center.

The customers’ classic cars are handled with the same devotion and expertise by highly qualified staff as the museum’s dream cars with which they rub tire shoulders in the workshop.

After restoration at the Mercedes-Benz Classic Center, a Daimler, Benz, Mercedes or Mercedes-Benz always remains an original. The Center’s workshop not only engages in complete or partial restorations, however. It also repairs individual components and rebuilds engines, transmissions, axles, steering systems and other assemblies if these are no longer available from the stocks of over 40,000 different genuine Mercedes-Benz parts.

Quality, safety and originality are accorded top priority in the workshop of the Mercedes-Benz Classic Center.

The workshop specializes in the pre-war supercharged models, the 600 and all models from the 300 series including the 300 SL Gullwing.
Owners of classic Mercedes-Benz cars do not always have to take their vehicles to Fellbach. They can turn to over 500 Mercedes-Benz sales and service outlets as well as authorized partners in Germany to obtain support in procuring replacement parts and literature.

The same applies to classic-car partners in France, Belgium and Switzerland. At 19 of these outlets in Germany, an extended range of services is offered. These outlets employ specialists with the relevant expertise and skills and operate the facilities required for a classic-car workshop. They are able to provide competent advice in all questions relating to engineering, care, repair and originality, and closely coordinate their activities with the experts in Fellbach at all times. The Mercedes-Benz Classic Center nevertheless remains the primary port of call for complete and partial restorations.

Since February 2006, owners of classic Mercedes-Benz cars in the USA have had their own port of call for service. In close cooperation with Mercedes-Benz USA, the first US Classic Center was opened in Irvine, California, in February 2006. This ensures life-long service for Mercedes-Benz classics in the USA as well.

Another service rendered by the Mercedes-Benz Classic Center is the compilation of expert reports on the originality of a classic car, including a description of its condition and documentation for all vehicles produced by the company since the invention of the automobile in 1886.

Over and above this, all classic cars are thoroughly checked through before being offered for sale in the showroom of the Mercedes-Benz Classic Center. The same applies to the historical convertibles included in the Classic Events' pool of rental cars. These cars, which can be rented for private excursions from April through to October, are regularly serviced by the workshop experts.

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The first automobile, the Benz Patent-Motorwagen, was not painted. Karl Benz had the metal parts protected against corrosion with a kind of common black pitch. In those days, two basic products were used as paint: oil varnish based on linseed oil, or, if a special quality was required, amber varnishes obtained from liquid amber resins which were very expensive.

Nowadays, the choice of the "right" or ideal paint is a highly debated topic among the owners of vintage cars. Does it make sense and is it permitted to have the Mercedes-Benz “Ponton” coated with nitrocellulose paint as the original? Or is it more important that the car looks good, i.e. like new after the restoration? As a general rule, not all original paint qualities are available today. The original oil-based paint is recommended only for genuine historical rarities or museum cars. For all other vehicles, modern and environmentally compatible paint systems have to be used. Nevertheless, classic cars, which are not refined with expertise or with the wrong shade, may lose considerably in value. Which is why they should always be refinshed by a competent bodyshop.

Modern paints are superior to the original paints with regard to mechanical and UV-resistance.

A vintage car should not be repaired by an amateur – no matter how enthusiastic he is. The health and safety requirements and the reliable repair of all systems with a relevance to safety can only be guaranteed by an authorized Mercedes-Benz workshop. Here, the paint finish will be performed to the required standards. High quality paint systems must be applied by skilled specialists.

Therefore, we recommend that you always contact an authorized Mercedes-Benz bodyshop and/or qualified refinishers like the Repanet bodyshops which exclusively use the paint systems approved by DaimlerChrysler AG.

Qualified bodyshops in your vicinity can be found at www.repanet.com

Modern paints are superior to the original paints with regard to mechanical and UV-resistance.

A Daimler, Benz, Mercedes or Mercedes-Benz car remains an original even after its restoration in the Mercedes-Benz Classic Center.
Where passion rules, common sense does not have to be left out in the cold. The Mercedes-Benz Classic Center combines expertise and professionalism with skills in traditional crafts – as well as with a profound love of veteran and vintage cars. The most advanced technologies and the experience gained by the world’s oldest motor manufacturer are made available for authentic restoration work or well-founded diagnostic reports. You are able to benefit from all this, whether you buy a classic car, choose the genuine parts you need from a range of over 40,000 or opt for one of the exclusive accessories from our Classic Collection. Or do you want to go on an unforgettable trip in a classic car? We’ll arrange an attractive event for you and your business partners – with just the right classic Mercedes-Benz cars which suit your requirements. We cater for your passion, and you’ll be in good hands.