

### General

Since January 1956 synthetic resin paints have been used exclusively for all Porsche vehicles. The original paintwork is denoted by a color plate on the left-hand door hinge pillar below the chassis number.

The paintwork operations described below are intended to clarify the procedures used for Porsche vehicles and should in this sense be regarded as guiding principles. It is recommended to keep to the instructions of the makers of branded paints regarding use, spray viscosity, nozzle widths of spray gun as well as spray pressure.

### Work bays and special instructions

Certain conditions must be observed during workshop operation:

The spray booths and drying ovens must be clean and dust free.

Note ! It is forbidden to spray nitro and synthetic resin paints alternately in the same booth.

The clothing of the spray operator should be non-fray and should be coated with dust-attracting compound. Only non-fraying paper should be used to mask the body during final painting.

Newspaper is unsuitable for this purpose.

When partially or completely repainting vehicles it should be ensured that all sections are free from silicone and way residues.

Whenever painting is carried out with oven-dried synthetic resin paints above 90°C (194°F) all component parts such as lights, fittings, radio, fuel tank, celluloid and plexiglass components, together with wiring, textile and rubber components should be removed.

Normally three types of synthetic resin paints are used:

1. Air drying synthetic resin paints.

By virtue of their low hardness these are only suitable for small paint jobs.

2. 80°C (176°F) baking paints.

Essentially these possess all the advantages of the new 140°C (284°F) baking paints but the resultant finish is not so hard. In general 80°C paints should be used for all repair paint jobs.

3. 140°C (284°F) baking paints.

These paints are used for out new cars and where suitable ovens are available can be utilised for re-painting. For this purpose all heat sensitive parts must be removed.

## Repainting

For repainting over existing paintwork proceed as follows.

### Cleaning:

Scrutinize old paintwork for condition. Completely remove and rub down where paint is damaged or flaking off. To remove the film resulting from polishing the parts in question should be cleaned with benzine, silicone remover or a similar material.

### Priming:

1. In places where the paint has been rubbed right down clean and spray with Aktiv primer.

Air drying time: 1/2 hour.

Oven drying time: 10 minutes at 40° - 50°C (104° - 122°F).

2. With damaged areas which have been rubbed down and primed fill if necessary up to 4 times.

Air drying time: 4 - 5 hours.

Oven drying time: 1 hour at 40° - 60°C (104° - 140°F).

3. Rub down filled spots with number 240 emery paper.

4. Spray with gray spray filler in 1-2 passes.

Air drying time: 6 - 8 hours.

Oven drying time: 1 hour at 70° - 80°C (158° - 176°F).

Leave for 10 minutes before drying to permit evaporation.

### Rubbing down:

Rub down body initially with wet abrasive paper No. 360.

Rub down body finally with wet abrasive paper No. 500.

#### Painting:

Before painting is carried out careful cleaning of the rubbed down body is essential. To prevent water spots the body must be carefully leathered and the flanges and gaps blown through with compressed air. The body should then be cleaned and dusted with anti-dust cloths. This ensures that when spraying neither dust nor dirt and water can spoil the paint finish.

Spray on synthetic resin enamel (with thinner) in desired color shade in one pass. According to the workshop equipment use air or oven drying paints. The paint film should not be applied too thickly (max. 0.04 mm/ 0.0016").

Metallic finish paints should be sprayed in several passes according to the covering power of the paint. Increase the distance from the spray gun to the spray surface to avoid any running (drier spraying).

Air drying time: approx. 12 hours.

Oven drying time: 1 hour at 70° - 80°C (158° - 176°F)

Allow ten minutes for evaporation between spraying and drying.

#### Note:

The full hardening effect, particularly in the case of air drying paints, does not take place until several days later. To increase resistance to scratching it is recommended that the body should subsequently be treated with preservative. The preservative should be applied thinly with a soft pad and then after drying off should be rubbed down with a clean pad.

In the case of partial repainting careful color matching should be carried out as the paint when ageing according to color shade will fade and weather differently. It may therefore be necessary even with the same paints to carry out reshading. If necessary prepare a paint sample on a suitable sheet of metal.

With partial repainting there is the risk that the shade of the repainted sections will alter after a certain time as a result of fading and will thus no longer match the other paintwork. (Caused by different oven temperatures.)

## Color coding:

Example: synthetic resin paint 6402

The two figures 64 denote the 1964 color range.

The figures 02 denote ruby red in this color range.

The figures 01 - 09 are standard production colors in the range concerned.

On the other hand 6413 is black and thus a special color in this catalog.

The new color coding has additionally two prefix numbers and a suffix letter after the coding,

e.g. 97 - 6802 - L.

The number 97 is an index number of the paint manufacturer concerned and here signifies 140°C (284°F) paint from Messers. Lesonal, who are denoted by the suffix letter L.

L = Lesonal

G = Glasurit

H = Herberts

The 1967/68 color range consists of the following standard colors:

|               |      |
|---------------|------|
| Slate gray    | 6801 |
| Polo red      | 6802 |
| Ossi blue     | 6803 |
| Light ivory   | 6804 |
| Bahama yellow | 6805 |
| Irish green   | 6806 |
| Sand beige    | 6807 |
| Burgundy red  | 6808 |
| Tangerine     | 6809 |

In addition the following 22 special colors are available:

|                   |        |                     |        |
|-------------------|--------|---------------------|--------|
| Ivory             | 17657  | Bush green          | 62163  |
| Champagne yellow  | 16153  | Dark green metallic | 62109  |
| Signal yellow     | R 1007 | Turkey green        | R 6016 |
| Lemon yellow      | R 1012 | Grey white          | 75742  |
| Dark red metallic | 30847  | Fortuna gray        | R 7030 |
| Crystal blue      | 52254  | Beige gray          | 70192  |
| Pastel blue       | R 5012 | Olive               | 62166  |
| Blue metallic     | 52300  | Sepia brown         | R 8007 |
| Ultra blue        | R 5013 | Coffee brown        | 80842  |
| Lime green        | 62165  | Black               | 95043  |
| Signal green      | R 6001 | Silver metallic     | 96024  |

R = Ral, ist obtainable from all manufacturers under this number.

For the 1966 models the following were standard colors:

|               |                              |
|---------------|------------------------------|
| Slate gray    | 6601                         |
| Polo red      | 6602                         |
| Gulf blue     | 6603                         |
| Light ivory   | 6604                         |
| Bahama yellow | 6605                         |
| Irish green   | 6606                         |
| Sand beige    | 6607                         |
| Aga blue      | 6608                         |
| Black         | 6609 plus 22 special colors. |

For the 1964/65 models the following were standard colors:

|                  |                         |
|------------------|-------------------------|
| Slate gray       | 6401                    |
| Ruby red         | 6402                    |
| Enamel blue      | 6403                    |
| Light ivory      | 6404                    |
| Champagne yellow | 6405                    |
| Irish green      | 6406                    |
| Signal red       | 6407 standard color and |
| Dolphin gray     | 6410                    |
| Togo brown       | 6411                    |
| Bali blue        | 6412                    |
| Black            | 6413 special color,     |

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## COLOR SELECTION CODES FOR 1970 AND 1971 MODELS

The formerly used numerical color code on the paint nomenclature plate has been replaced with a new four-digit numerical code with letter identification of the paint manufacturer.

Paint manufacturer's identification:

- L = LESONAL
- G = GLASURIT
- H = HERBERTS
- HL = HERBOL

### Standard colors for 1970 and 1971 Models:

|               | Targa | Coupe |
|---------------|-------|-------|
| Light ivory   | 1110  | 1111  |
| Signal orange | 1410  | 1414  |
| Irish green   | 1510  | 1515  |
| Tangerine     | 2310  | 2323  |
| Bahia red     | 1310  | 1313  |
| Albert blue   | 1810  | 1818  |
| Pastel blue   | 2010  | 2020  |
| Burgundy red  | 2410  | 2424  |
| Conda green   | 2610  | 2626  |

Optional colors to order                      9898

### Optional Colors for 1970 and 1971 Models:

|                 | Targa | Coupe |
|-----------------|-------|-------|
| Black           | 1010  | 1010  |
| Olive           | 3910  | 3939  |
| Ivory           | 4610  | 4646  |
| Light yellow    | 6210  | 6262  |
| Turquoise       | 6410  | 6464  |
| Turquoise green | 6510  | 6565  |
| Glaze blue      | 6610  | 6666  |
| Signal yellow   | 7210  | 7272  |
| Cristal blue    | 7310  | 7373  |
| Sepia brown     | 7410  | 7474  |
| Beige grey      | 7510  | 7575  |
| Grey white      | 7610  | 7676  |
| Bush green      | 7710  | 7777  |
| Signal green    | 7810  | 7878  |
| Light red       | 7910  | 7979  |
| Metallic silver | 8010  | 8080  |
| Metallic red    | 8110  | 8181  |
| Metallic green  | 8310  | 8383  |
| Metallic blue   | 8410  | 8484  |
| Metallic gemini | 8610  | 8686  |
| Metallic gold   | 8810  | 8888  |

### NOTE

Beginning with 1970 models, all metallic finishes are applied in the two-coat wet-on-wet process.

## DOUBLE COAT METALLIC PAINT FINISH

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### General

The new metallic paint finish differs from the formerly used single coat finish in that it is applied in two coats, that is, a metallic basic coat, and a clear top coat. This application is accomplished by the wet-on-wet method and produces an especially smooth and long lasting gloss.

Application of this wet-on-wet method still requires the usual attention and care required by the single coat method. Although dust particles or minor scratches in the top coat can be removed with wet sanding paper of 600-grain coarseness, followed up with polishing compounds.

When several adjacent areas are to be painted, it is necessary to spray the entire side, front or rear section, or the entire body. If the paint job does not turn out as good as required, it will be necessary to sand the entire surface again and respray with both coats.

In the past it was possible to apply this double coat method only in paint shops which could utilize 80°C materials. This material, when handled in professional manner, produces results which are almost comparable with original finishes. Consequently, shops which have a drying facility at their disposal should continue to apply this painting method.

For an alternate method, the double coat metallic paint now is available in an air drying version. This process is more difficult to accomplish and does not provide results obtainable through the 80°C baking process. The following disadvantages are inherent in this type of painting:

- a. The paint finish is initially very easily scratched and does not reach a fair degree of hardness until after about 8 to 10 days, although application of regular heating lamps or devices does speed up the drying process.
- b. A filler coat must be used to ensure proper bonding between the old and new coats.
- c. The clear top coat yellows after about two years time.

## APPLICATION OF 80°C DOUBLE COAT METALLIC ENAMELS

### A. Preparation

Smaller damages where the old paint can be oversprayed should be sanded with 400 or 500-grain wet sanding paper and then smoothened with 500 or 600-grain wet sand paper.

#### NOTE

If coarser sand paper is used, sanding scratches may become visible in the new finish.

### B. Priming and Painting

Painting of new parts or the entire body is accomplished in the same manner as applicable to 80°C baked synthetic enamel. In the same way, filler can be the 80°C synthetic resin filler or the combination filler. If a toning metallic paint is to be applied, select primer of proper color. Also, the application of the double coat metallic enamel continues to present the otherwise known problems inherent in metallic paint applications. Therefore, only whole surfaces or body parts can be painted.

The metallic enamel is to be sprayed into a faultless surface, at first with fine spray nozzle setting and 1/2 cross-sweep, followed up with a second cross-sweep utilizing same material.

To avoid shading, the spray should be neither too dry (results in light tones), not too wet (results in dark tones). It is necessary to spray paint each body section individually.

|                                   |                                |
|-----------------------------------|--------------------------------|
| Viscosity of basic metallic paint | 14 - 17 sec. DIN 4 mm at 20° C |
| Spray pressure                    | 4 - 5 atmospheres              |
| Spray gun nozzle                  | 1 - 1.2 mm                     |
| Application                       | 1 1/2 cross-sweeps             |

An evaporation period of 5 minutes is required before applying the second coat. A fully dull appearance of the basic coat is an optical indication that the second coat can be applied. Care should be taken to keep the spray nozzle distance and paint coat thickness uniform when painting.

|                                 |                                |
|---------------------------------|--------------------------------|
| Viscosity of 80° C clear enamel | 20 - 22 sec. DIN 4 mm at 20° C |
| Spray pressure                  | 4 - 5 atmospheres              |
| Spray gun nozzle                | 1 - 1.2 mm                     |
| Application                     | 1 1/2 cross-sweeps             |

#### NOTE

The subsequently compounded two-component spray mix is usable over a limited period of time only. Therefore, only that amount of mix required for the given day should be prepared.

#### Drying

After an airing period of at least 10 minutes, drying of both coats can be initiated. Drying time is 60 minutes at 80° C.

#### NOTE

The specified drying time must not be shortened. The full bonding to the base takes place only after the cooling down period. For this reason, masking tape should be removed either immediately after the completion of painting, or else after cooldown following the oven baking.

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#### APPLICATION OF AIR-DRYING (20°C) DOUBLE COAT METALLIC ENAMELS

This painting procedure should be applied only if the 80°C baking process cannot be realized. When compared with the baked-on enamel, this paint finish is considerably more susceptible to scratches. The drying process is progressive and, depending upon the ambient temperature, the paint surface hardens in about 8 to 12 days.

Application of heating devices, such as infra-red lamps, shortens the drying time. Assembly operations should not be initiated sooner than 24 hours after completion of painting.

## NOTE

When painting surface sections, first thoroughly clean (polish) at least those vehicle sections which will adjoin the newly painted surface, in order to remove weathered paint; only then is an exact matching of the new paint possible.

## Preparation

Painted surfaces should be presanded with 400 to 500-grain wet sand paper. If coarser sand paper is used, scratches may later show through the new paint.

Unpainted or blank-sanded surfaces should be derusted and painted with an active primer (two-component material).

|                 |                           |
|-----------------|---------------------------|
| Spray viscosity | 16 - 17 sec. DIN 4 mm cup |
| Drying time     | 15 min. at 20°C           |

## Filler

Synthetic resin or combination filler may be used.

Spray the entire area with filler. To ensure good bonding, it is also necessary to coat those surfaces with filler which are to be repainted.

|                                  |                         |
|----------------------------------|-------------------------|
| Spray viscosity                  | 18 - 20 sec. DIN 4 mm   |
| Spray pressure                   | 5 atmospheres           |
| Application                      | 1 1/2 to 2 cross-sweeps |
| Drying time (combination filler) | ca. 2 hours at 20°C     |

## Basic Paint Coat

Basic metallic paint is same as 80°C enamel. Spray basic metallic paint wet, avoiding dusting (similar as Uni-Enamel).

|                  |                                                                   |
|------------------|-------------------------------------------------------------------|
| Spray viscosity  | 13 - 14 sec. DIN 4 mm                                             |
| Thinner          | HERBOL V 161-1125, or other good quality synthetic enamel thinner |
| Spray pressure   | 5 atmospheres                                                     |
| Spray gun nozzle | 1,0 - 1,2 mm                                                      |
| Application      | 1 1/2 cross-sweeps                                                |