

# Product Data Sheet

January 2008



INTERNATIONAL MASTER  
FOR PROFESSIONAL USE ONLY

# 10500V

## Aquabase™ Waterborne Basecoats

<i>Product</i>	<i>Description</i>
P275-366	Aquabase Additive
P275-372	Aquabase Additive High Temperature
P935-1029	Aquabase Fade-Out Additive
P935-2018	Aquabase Activator
P965-line	Aquabase Mixed Colours
P967-line	Aquabase Pigmented Mixing Basics
P968-line	Aquabase Aluminium Mixing Basics
P969-line	Aquabase Pearlescent/Special Effect Mixing Basics
P970-line	Aquabase Special Effect Pigment Mixing Basics
P978-line	Aquabase Special Pigmented Mixing Basics
P980-230	Aquabase Thinner
P980-2350	Aquabase High Temperature Thinner

### Product Description

Aquabase is a waterborne basecoat mixing scheme for repairs that not only drastically reduces solvent emissions into the environment but also has outstanding qualities of performance in its own right.

Aquabase is part of a complete product system offering comprehensive basecoat colour matching (including metallics, pearls, solid colour basecoat and special effect finishes), With good covering power and fade-out capability Aquabase maintains bodyshop productivity and profitability.

Coupled with suitable high quality **Nexa Autocolor** clearcoats, the Aquabase system delivers excellent gloss and appearance combined with excellent durability. Easy to apply, this simple and flexible product system is capable of being used across a wide range of ambient conditions.

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## Substrates/Preparation

**Aquabase** waterborne basecoats can be applied over any compliant Nexa Autocolor 2-Pack primers. For maximum durability on bare metal first apply a suitable Etch Primer or 2K Epoxy Primer.

**Do not** apply Aquabase basecoat directly over 2-pack etch primers.  
**Do not** apply over TPA finishes. Always isolate with 2K primer on complete panels.

Aquabase waterborne basecoats can be applied directly over Aerosol/Rub Through Primers, P565-908, P565-9081, P565-9086, P565-9087 and P565-909.

New panels:

On new panels coated in works primer/electrocoat, it is recommended that the **Nexa Autocolor** 2-Pack primers above are applied as appropriate (refer to Primer TDS's for details).

Galvanised panels:

These should be prepared using the recommended **Nexa Autocolor** system, using P565-713 Etch Primer or a suitable 2K Epoxy Primer.

Plastics:

Use the recommended **Nexa Autocolor** system for painting plastics.

Prepared existing paintwork in sound condition:  
Existing paintwork should first be flatted/abraded,

**Wet flat with P800 or finer grade wet/dry paper or when dry sanding use P400 or finer.**

The area into which blending is done should be flatted/abraded with ScotchBrite™ Grey Ultrafine in combination with P562-100/P562-106. Clean flatted area with P980-251 or P980-9010. (N.B. See Process Notes for Fade out of 3-Stage basecoat colours).

## Spectral Greys

All colours will benefit from the use of the appropriate Spectral Grey. Use of the specified Spectral Grey will ensure that the minimum volume of topcoat colour is used and will also help to optimise basecoat process times. The recommendation for which Spectral Grey to use can be found on the colour system.

### Preparation of substrate

**Wet flat with P800 or finer grade wet/dry paper or when dry sanding use P400 or finer.**

For the removal of water soluble salts & flatting residues produced by wet and dry flatting, use P980-251 or P980-9010.

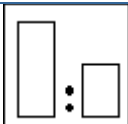





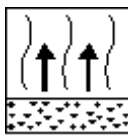
### P980-251/-9010 application:

Use one clean cloth for application and one clean cloth for wiping off contaminants **or** Apply P980-251/-9010 evenly using the recommended spray bottle and wipe off with a clean cloth to wipe off contaminants.

Do not allow cleaning materials to dry on panel surfaces.





**Process**

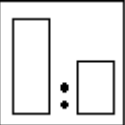




	<b>Metallics and 2 - Stage Pearlescent Basecoats</b>	<b>Solid Colour Basecoats</b>
	P965-XXXB      10 parts P935-2018      1 part P980-230/-2350      0 - 1 part (0 - 10%)	P965-XXXB      10 parts P935-2018      1 part P980-230/-2350      0.5 - 1 part (5 - 10%)
	Activate shortly before use. To adjust to viscosity, refer to process notes.	Activate shortly before use To adjust to viscosity, refer to process notes.
	23-28 secs DIN4 at 20°C Always filter using nylon filters. (125 microns is recommended) <b>Pot-Life</b> : 1 month	21-28 secs DIN4 at 20°C Always filter using nylon filters. (125 microns is recommended) <b>Pot-Life</b> : 1 month
	1.3 - 1.4 mm  3.0 - 3.3 bar (45 - 50 psi)	1.3 - 1.4 mm  3.0 - 3.3 bar (45 - 50 psi)
 	Gravity HVLP or Compliant guns: -  Typical nozzle size: 1.2-1.4 mm  Pressure <b>HVLP</b> guns: 0.7 bar/10 psi max (@ air cap) For full recommendation on HVLP guns refer to the manufacturers instructions.  Inlet Pressure <b>Compliant</b> guns: Refer to spraygun manufacturers instructions, normally 2 bar/30 psi (inlet)	Gravity HVLP or Compliant guns: -  Typical nozzle size: 1.2-1.4 mm  Pressure <b>HVLP</b> guns: 0.7 bar/10 psi max (@ air cap) For full recommendation on HVLP guns refer to the manufacturers instructions.  Inlet Pressure <b>Compliant</b> guns: Refer to spraygun manufacturers instructions, normally 2 bar/30 psi (inlet)
	Method 1. Apply single coats to opacity, followed by a light coat for even metallic appearance. Flash-off thoroughly between coats  Method 2. Apply as a double coat, followed by a further single coat if required to reach opacity. Finish with a light coat for even metallic appearance.  Flash off thoroughly between coats.	Method 1. Apply single coats to opacity for all colours. Never apply more than 3 coats except for spot repairs, where each coat tends to be lighter/thinner  Method 2. Double coats may be applied where opacity can be reached in one visit. Care must be taken to avoid excessive film build.  Flash off thoroughly between coats.
	Use the Aquadry or Fast Aquadry drying equipment, to reduce flash off time between coats if required.  For small repairs use the Aquadry Handgun.	Use the Aquadry or Fast Aquadry drying equipment, to reduce flash off time between coats if required.  For small repairs use the Aquadry Handgun.

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### Process (continued)

	Metallics and 2 - Stage Pearlescent Basecoats	Solid Colour Basecoats
	Wait until uniformly dry before clearcoating	Wait until uniformly dry before clearcoating
	Short Wave: 3-5 mins approx Medium Wave: 5-7 mins approx.  Allow to cool for a minimum of 5 mins before application of clearcoat	Short Wave: 3-5 mins approx Medium Wave: 5-7 mins approx.  Allow to cool for a minimum of 5 mins before application of clearcoat
<b>CLEARCOATS</b>	Aquabase may be overcoated with a wide range of <b>Nexa Autocolor</b> 2K Clearcoats. Refer to clearcoat TDS's for details.	Aquabase may be overcoated with a wide range of <b>Nexa Autocolor</b> 2K Clearcoats. Refer to clearcoat TDS's for details.


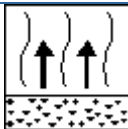

### Process

	3 - Stage Basecoats	
	Groundcoat	Mid Coat or Tinted Layer
	P965-XXXG 10 parts P935-2018 1 part P980-230/-2350 0.5 - 1 part (5 - 10%)  Activate shortly before use. To adjust viscosity, refer to process notes.	P965-XXXB 10 parts P935-2018 1 part P980-230/-2350 3 parts  Activate shortly before use. To adjust viscosity, refer to process notes.
	23-31 secs DIN4 at 20°C Always filter using nylon filters. (125 microns is recommended)  Pot-Life: 1 month	Always filter using nylon filters. (125 microns is recommended)  Pot Life: 1 month activated and unthinned Use immediately after thinning.
	1.3 - 1.4 mm  3.0 - 3.3 bar (45-50 psi)	1.3 - 1.4 mm  3.0 - 3.3 bar (45-50 psi)
 	Gravity <b>HVLP</b> or <b>Compliant</b> guns: - Typical nozzle size: 1.2-1.4 mm  Pressure <b>HVLP</b> guns: 0.7 bar/10 psi max (@ air cap) For full recommendation on HVLP guns refer to the manufacturers instructions.  Inlet Pressure <b>Compliant</b> guns: Refer to spraygun manufacturers instructions, normally 2 bar/30 psi (inlet)	Gravity <b>HVLP</b> or <b>Compliant</b> guns: - Typical nozzle size: 1.2-1.4 mm  Pressure <b>HVLP</b> guns: 0.7 bar/10 psi max (@ air cap) For full recommendation on HVLP guns refer to the manufacturers instructions.  Inlet Pressure <b>Compliant</b> guns: Refer to spraygun manufacturers instructions, normally 2 bar/30 psi (inlet)

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Process (continued)

3 - Stage Basecoats

	<p>Apply single coats to opacity for all colours.</p> <p>Never apply more than 3 coats except for spot repairs, where each coat tends to be lighter/thinner</p> <p>Flash off thoroughly between coats.</p>	<p>Apply single fully wetted coats based on colour check panel.</p> <p>Never apply more than 3 coats except for spot repairs, where each coat tends to be lighter/thinner</p> <p>This layer is not designed to reach opacity.</p> <p>Flash thoroughly between coats.</p>
	<p>Use the Aquadry or Fast Aquadry drying equipment, to reduce flash off time between coats if required.</p> <p>For small repairs use the Aquadry Handgun.</p>	<p>Use the Aquadry or Fast Aquadry drying equipment, to reduce flash off time between coats if required.</p> <p>For small repairs use the Aquadry Handgun.</p>
	<p>Wait until uniformly dry before application of pearlcoat.</p>	<p>Wait until uniformly dry before clearcoating</p>
<p><b>CLEARCOAT</b></p>		<p>Aquabase may be overcoated with a wide range of <b>Nexa Autocolor 2K Clearcoats</b>. Refer to clearcoat TDS's for details.</p>

## General Process Notes

### COLOUR IDENTIFICATION AND CHECKING

As with all paint systems, you should carry out a colour check after mixing and before continuing with the painting process.

This should include Spectral Greys and tinted clearcoats when recommended in the colour recipe.

### BASECOAT MIXING

Mix paint only in plastic containers. **DO NOT** use metal containers. Gently invert cans twice before dosing. Stir immediately after weighing all the ingredients specified.

**Do not shake.** Cover container if left for any length of time before use.

### CHOICE OF ADDITIVE

In order to obtain the best application at higher temperature select the additive appropriate for the conditions: -

P275-366 Standard                      20-28°C

P275-372 High Temperature    >28°C

Replace P275-366, which appears in the colour recipe with the same weight of P275-372 when appropriate.

### VISCOSITY ADJUSTMENT

Optimum performance is obtained by spraying at 23-25 secs. The preferred method of achieving this is to measure the viscosity and adjust as detailed in method 1.

A quicker but less accurate method of achieving a satisfactory spraying viscosity, which does not require measurement, is detailed in method 2.

**Method 1.** After addition of P935-2018 ensure that the paint temperature is at least 20°C and measure the DIN 4 viscosity. Adjust the viscosity by addition of P980-230/-2350 using the following thinning guide: -

Paint viscosity Secs DIN4	P980-230/-2350 addition required by weight
21-28	0%
28-35	5%
>35	10%

**Method 2.** Adjust activated paint mix with P980-230/-2350 as detailed below: -

Temperature range	P980-230/-2350 addition Required by weight
20 - 25°C	0 -10 %
Over 25°C	0 - 5 %

Viscosity adjustment is not required for Aquabase pearlcoat.

For optimum performance it is strongly recommended that Aquabase is sprayed at a temperature of >20°C

## General Process Notes

### EQUIPMENT CLEANING

#### **Manual Gun Cleaning Machine**

Clean the gun using water in a suitable gun cleaning machine. For gravity feed guns unscrew the paint cup (and filter if fitted) and rinse separately. Rinse gun through with clean water. Finally spray through with clean Aquabase thinner P980-230 and ensure that the gun is fully dry before storing or further use.

#### **Automatic Gun Cleaning Machine**

Disassemble gun and place in waterborne gun cleaning machine as per manufacturers' instructions. After the cleaning cycle, clean off the gun parts and rinse with water. Assemble gun and spray through with Aquabase thinner P980-230. Ensure gun is fully dry before storing or further use.

For the treatment and disposal of waste water from the gun cleaning process refer to the appropriate TDS.

### RECTIFICATION

Visible defects, e.g. dirt, are readily removed provided the basecoat is fully dry and the defect is dry denibbed using minimal pressure with P1200 wet/dry paper. It is preferable to remove defects before clearcoating. Once clearcoated, defects can only be removed when into-service times have been reached.

### STORAGE

Store free from frost, above 4°C



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## General Process Notes

### Fade Out Repairs

#### Metallic, 2 Stage Pearls And Solid Colour Basecoats

##### Preparation

Prepare the repair area in the appropriate Spectral Grey (SG01-SG07) as recommended on the colour recipe. Where no Spectral Grey is specified then SG05 should always be selected. The specified Spectral Grey primer should be applied and flashed off in accordance with the appropriate PDS.

Application of the Spectral Grey as a primer is normally expected to give the best results. However in some circumstances Aquabase can be used as a Spectral Grey ground coat. In such cases the best results will be seen with the darker greys, SG05-SG07.

Flat undercoated area (P800 wet or P400 dry or finer). For rub-through's to bare metal, apply P565-9081/908/9086/9087.

Where an overspray edge is created for e.g. from the use of a wet on wet primer, the repair area should be denibbed to produce a feather edge using P800 wet or P400 dry paper (or finer) taking care to remove all primer overspray.

The area into which blending is done should be flatted/abraded with ScotchBrite Grey Ultrafine in combination with P562-100/P562-106 or P1200 wet. Clean flatted area with P980-251 or P980-9010.

##### Complete Panel Repair and Fade Out into adjoining panel

Mask out adjacent panel if necessary.

Apply basecoat to undercoated area as normal to opacity.

Remove any temporary masking and tack rag.

(If required add up to 1 Part Fade-Out Additive P935-1029 to 1 Part of the colour mix in the gun)

Adjust pressure at gun to 1.7 - 2.3 bar (25 -35 psi) for conventional sprayguns or 1.1 - 1.5 bar (16 - 22 psi) for compliant sprayguns and fade further onto the adjoining panel using an arcing motion of the spraygun at the end of each pass and without triggering off, to give smooth, even laydown of the faded edge.

Allow to dry uniformly before applying clearcoat.

##### Spot Repair

(The Aquadry handgun can be used to speed up flash-off between coats)

##### **Metallic and 2-Stage Pearlescent basecoats:**

Set pressure to 2.0 to 2.5 bar (30 -37 psi) for conventional sprayguns or 1.5 - 1.8 bar (22 - 27 psi) for Compliant sprayguns.

Paint prepared area to obliterate primed area.

(If required add up to 1 Part Fade-Out Additive P935-1029 to 1 Part of the colour mix in the gun)

Reduce pressure at gun to 1.7 - 2.0 bar (25 - 30 psi) for conventional sprayguns or 1.1 - 1.5 bar (16 - 22 psi) for compliant sprayguns and fade further into the surrounding prepared area using an arcing motion of the spraygun at the end of each pass and without triggering off, to give smooth, even laydown of the faded edge.

Flash off basecoat until uniformly dry before applying clearcoat.



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## General Process Notes

### Solid Colour Basecoat

Set pressure to 2.0 to 2.5 bar (30 -37 psi) for conventional sprayguns or 1.5 - 1.8 bar (22 - 27 psi) for Compliant sprayguns.

Paint prepared area to obliterate primed area fading each coat further into the surrounding prepared area. If required add up to 1 Part Fade-Out Additive P935-1029 to 1 Part of the colour mix in the gun

Flash-off basecoat until uniformly dry before applying clearcoat.

HVLP sprayguns apply at normal pressure as recommended by the spraygun manufacturer and when fading out reduce pressure as necessary. The final pressure used will depend upon the brand of HVLP spraygun used.

### 3-STAGE BASECOATS

The transparent nature of 3-Stage colours means that a fade-out process is more difficult to achieve. Refer to the section below for details on the recommended fade out process.

Alternatively, the fade-out process may be avoided either by a complete panel repair, or by using break lines to reduce the size of the area to be painted.

### Preparation

Prepare the repair area in the appropriate Spectral Grey (SG01-SG07) as recommended on the microfiche colour recipe. Where no Spectral Grey is specified then SG05 should be selected. The specified Spectral Grey primer should be applied and flashed off in accordance with the appropriate TDS.

Application of the Spectral Grey as a primer is normally expected to give the best results. However in some circumstances Aquabase can be used as a Spectral Grey ground coat. In such cases the best results will be seen with the darker greys, SG05-SG07.

Flat undercoated area (P800 wet or P400 dry or finer). For rub-through's to bare metal, apply P565-909/-908, P565-9081/9086/9087. Where an overspray edge is created for e.g. from the use of a wet on wet primer the repair area should be denibbed to produce a feather edge using P800 wet or P400 dry paper (or finer) taking care to remove all primer overspray. The area into which blending is done should be flatted/abraded with P2000 grade wet/dry or equivalent paper.

**Do not** use ScotchBrite in combination with flattening paste to prepare a 3-Stage fade-out area.

Clean flatted area with P980-251 or P980-9010.

### Complete Panel Repair and Fade Out into adjoining panel

(Ensure a colour check is carried out first & the number of coats of pearl is known)

#### Groundcoat layer:

Apply groundcoat to the complete panel as normal (3 to 3.3 bar, 45 to 50 psi for Conventional guns, 0.7 bar, 10 psi for HVLP sprayguns and 2 bar inlet pressure for Compliant sprayguns).

Apply to opacity and fade into the adjoining panel as necessary (as described in the Solid colour basecoat section above).

Allow to dry uniformly and Tak Rag before applying the transparent layer.

#### Transparent layer (mid coat):

Apply the mid coat to the repair area making sure that the layer extends beyond the Groundcoat. Each application of mid coat should extend further into the repair area to ensure a good fade out edge.

Allow mid coat to dry uniformly before applying clearcoat.

## General Process Notes

### Spot Repair

(The Aquadry handgun can be used to speed up flash-off between coats)

#### Groundcoat layer:

Set pressure to 2.0 to 2.5 bar (30 -37 psi) for conventional sprayguns or 1.5 - 1.8 bar (22 - 27 psi) for Compliant sprayguns. Apply Groundcoat to prepared area to obliterate the primed area fading each coat into the surrounding area.

If required add up to 1 Part Fade-Out Additive P935-1029 to 1 Part of the colour mix in the gun. Tak Rag between coats.

Flash off Groundcoat until uniformly dry before applying Pearlcoat.

#### Transparent layer (mid coat):

Set pressure to 2.0 to 2.5 bar (30 -37 psi) for conventional sprayguns or 1.5 - 1.8 bar (22 - 27 psi) for Compliant sprayguns. Apply the first coat of mid coat over the Groundcoat, extending the repair area beyond the Groundcoat edge and further into the surrounding prepared area.

When applying the remaining coats of mid coat extend further into the repair area as required.

Allow each layer of mid coat to dry fully before further application.

Flash-off basecoat until uniformly dry before applying clearcoat.

HVLP sprayguns apply at normal pressure as recommended by the spraygun manufacturer and when fading out reduce pressure as necessary.

The final pressure used will depend upon the brand of HVLP spraygun used.

### VOC INFORMATION

The EU limit value for this product (product category: IIB.d) in ready to use form is max. 420g/litre of VOC.

The VOC content of this product in ready to use form is max. 420g/litre.

Depending on the chosen mode of use, the actual ready to use VOC of this product may be lower than that specified by the EU Directive code.

**These products are for professional use only** and are not to be used for purposes other than those specified. The information on this TDS is based on present scientific and technical knowledge, and it is the responsibility of the user to take all necessary steps in order to ensure the suitability of the product for the intended purpose.

For Health and Safety information please refer to the material Safety Data Sheet, also available at: [http://www.ppg.com/Autocolor\\_MSDS](http://www.ppg.com/Autocolor_MSDS)

### For further information please contact:

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