

# **TECHNICAL BULLETIN**

Introduction Of Water-base Color – Base-coat Paint – 1998 MY Paint Colors MODEL 1998 MY-ON V8 Sedan & XK8 VIN 018108-ON 812256-ON

### Issue:

Water-base color base-coat paints will be introduced as a running change in production during the 1998 Model Year. This Technical Bulletin provides information on the use of conventional solvent-based and water-based paints for vehicle refinishing purposes.

## BACKGROUND

To comply with UK and EEC Environmental Protection Industry legalization regarding volatile organic compound (VOC) emissions, Jaguar is introducing a water-base color-coat paint system. Use of the system will begin with the introduction of the 1998 Model Year vehicle range. The change to water-base paint only affects the color coat of Jaguar's current clear lacquer coat over base color-coat (COB) paint system. The full introduction of 1998 Model Year water-base colors will be achieved as a running change, color by color. This will mean that a number of 1998 Model Year vehicles will be painted in solvent basecoat material.

To distinguish between solvent and water-base paint finishes, a new body color paint code has been devised. The new codes differentiate between solvent and water-base paint; British Racing Green codes are shown as an example:

CURRENT SOLVENT-BASE PAINT JBC: 753 ALPHA CODE: HFB

NEW WATER-BASE PAINT JBC 1753 ALPHA CODE: HGD

The differences are that a "1 " prefix has been added to the water-base paint JBC number and the Alpha Code has changed.

Unlike solvent-based paint, water-base paint combines a solution of solvent and water to suspend the paint solids.

Water-base paint solutions are shown below:

Solid Colors i.e. British Racing Green, Westminster Blue, etc: 12% solvent + 28% solids + 60% water

White Solid only: 12% solvent + 38% solids + 50% water

Mica Metallic: 12 % solvent + 16 % solids + 72% water

**Note:** The solids and water content ratios may vary slightly, depending on color and manufacturing tolerances.

Vehicles painted with water-base paint can be repaired using a, solvent-base refinish paint material; similarly a vehicle painted with solvent-base paint can be repaired using a water-base refinish paint material. Jaguar's preference will be that all paint repairs, whether Warranty or crash-related, are performed using a water-base refinish paint.

Jaguar's aim is to progressively introduce a water-base repair standard in all of Jaguar's markets after a period of consultation has been undertaken to assess individual market requirements.

## Action:

Apply water-base paint using the same methods and similar equipment that is currently used to apply solvent-based paints.

## CONSIDERATIONS FOR WATER-BASE REFINISH PAINT REPAIRS

Note the following when using water base paint for repairs:

- Water-base paint takes longer to dry than solvent-base paint and in most circumstances when a whole vehicle is being repainted the air movement in the spray booth will prove adequate. However, paint problems normally arise when panels separate from the vehicle are being sprayed. These problems can be overcome by inducing air movement in the spray booth to reduce the drying time of water-base paint to that of a solvent-based paint. The preferable air movement through the booth should be approximately 2M/min, and this can be achieved by either modifying the booth or by introducing a separate stand-alone forced air blow.
- Humidity control is a vital factor when spraying a water-base paint. The Relative Humidity (RH) should not exceed 65% or be less than 15%. In most western markets RH should not be a problem, however in Japan, USA and tropical climate markets, summer RH will often exceed 90%. Humidity levels higher than 65% can cause the paint film to suffer problems such as popping, pinholes, fish eyes, and mottling of metallic paint. Increasing the temperature in the booth during paint spraying will reduce RH, however RH air filtration may be required.

- Temperature control when storing and handling water-base paint is a necessary requirement. The paint should not be stored at temperatures below 59 °F (15 °C), although when paint is being transported, short exposure to temperatures down to 39 °F (4 °C) will not affect the paint. When spraying water-base paint a temperature of 68 °F (20 °C) or above is recommended.
- Cleaning of the spray gun and associated equipment may make it necessary to purchase new stand-alone equipment, but this will depend on the paint refinish system used.
- A water-base tinter system is similar to a solvent system except that a paint agitation machine is not required.

1998 Model	Year Color Range:		
JBC	NUMBER	ALPHA CODE	PAINT COLORS
JBC	1712	JHG	Westminster Blue
JBC	1732	NEE	Spindrift
JBC	1753	HGD	British Racing Green
JBC	1806	JHE	Sapphire Blue
JBC	1807	PEC	Black (special order only)
JBC	1810	LGL	Titanium
JBC	1811	CGG	Carnival
JBC	1820	SEC	Topaz
JBC	1823	HGL	Spruce
JBC	1835	HGE	Sherwood
JBC	1839	JHF	Aquamarine
JBC	1840	JHH	Antigua
JBC	1859	PED	Anthracite
JBC	1860	MDV	Seafrost
JBC	1861	JHJ	Mistral *
JBC	1862	KD	Amaranth *
JBC	1911	MDX	Meteorite *
JBC	1881	CGH	Madeira

#### WATER-BASE BASE-COAT COLORS

\* Denotes new color for 1998 Model Year