



## **SAPPHIRE**

### **FLEXO**

**(Prefix MAP)**

#### **DESCRIPTION**

A high performance water-based ink range for printing onto high density and low density polythene & polypropylene.

#### **TYPICAL PROPERTIES**

Bright & strong with good transfer properties.  
Excellent dry rub.  
Good wet-wrinkle resistance (develops 2-3 hours after printing)  
Good gloss.  
Water reducible.  
(As with all water-based inks frost damage is irreversible - store above 5<sup>0</sup>C).

A slow drying version is available for use at low print speeds – however this takes longer to obtain maximum water resistance and depends on the drying capability of the press.

#### **SUBSTRATES**

Gives adhesion to a wide variety of substrates such as high and low- density treated polythene, treated polypropylene & cellulose films.

N.B. Treated films should have a treatment level of 40-42 dynes/cm.

#### **REDUCERS**

Sapphire inks should be reduced with water, but if colour of ink is too strong, then the use of Sapphire medium is recommended, in order that end properties are not lost.

#### **COLOUR RANGE**

Available in a wide range of colours that demonstrate good lightfastness, although care should be taken to ensure that the ink being used is suitable for the end use intended. Prolonged exposure to light will necessitate the selection of special pigments. Colours are matched under D50 lighting.

**N.B.** Sapphire inks are not recommended for printing in heat seal areas, for weather resistant, or deep freeze applications.

#### **QUALITY ASSURANCE**

Products with the prefix and product name specified above are Quality Controlled to Mirage Inks Test Specification No.10 as described in the test manual. Details of all tests are available on request from our technical department

The information given above is supplied as a guide only with the properties achieved under laboratory conditions. Mirage Inks Limited strongly recommends that you satisfy yourself as to the suitability of the product with trials. Please consult our laboratory to discuss any different requirement. As particular conditions of use, and variations in quality of materials and substrates being used are outside our control, & it is not possible to guarantee the performance of our products.

Products supplied under this ink name / prefix, are best used within a six-month period from the date of manufacture (as specified on the product label).

In-line with Mirage Inks Ltd ISO 9001 procedures, retained batch samples for any product supplied under this ink name / prefix, are retained & stored at room temperature for a period of six months from the date of manufacture.

Should the product be used outside of this six-month period, Mirage Inks Ltd. have no reference sample for comparative & test purposes, so cannot investigate or be held responsible for any print related problems.

Mirage Inks Ltd will not accept liability for any claim arising as a consequence of a laboratory colour matching being offered to our customer in good faith, and then subsequently Mirage's customer failing to obtain approval from their customer prior to printing / production.

## Additives:

### **Foaming**

Over a long print run the Sapphire inks may foam in the pump. Mirage supply a AX272 defoamer to counter this.

*AX272 contains a 'mineral oil' based defoamer which can cause swelling of photopolymer plates if used in high concentrations.*

For more detailed information – such as the recommended addition level, refer to AX272 technical data sheet.

### **Stabiliser**

When small detailed designs are printed there is very little ink usage. Therefore the small amount of volatile amine in the ink is lost.

If the print is seen to be deteriorating it is recommended that Mirage stabiliser **AX319** be added at the addition level of 200g to 10kg of ink at the maximum rate of once every four hours.

### **Dirty Print**

If dirty working occurs during a print run, stop the press and clean the stereos. *To avoid contamination of the ink with the detergent based cleaning solution (used to clean the print units at the end of the run), use stabiliser **AX319** on a lint free cloth to wipe the stereos. This will act as a very effective cleaning solution and will not cause problems with contamination.*

If the problem still occurs, add stabiliser AX319 at the recommended addition level.

If this does not correct the problem, add Sapphire Retarder MS120 at the recommended addition level (0.5% additions to a maximum of 2.0% in the Sapphire ink system).

If the problem still occurs consult Mirage Inks Limited Technical department for further guidance.

### **Cleaning Guide**

Mirage recommends **AX381** for general cleaning. (Refer to product data sheet for more detailed information).

This is used at 1 to 10 with water to produce a cleaning solution.

To clean the units firstly drain all the ink and retain for future work.

Then pump the cleaning solution described above around the print unit. Do not allow ink washings to return to the ink.

Keep the 'dirty' cleaning solution separate for approved disposal by the local authorities.

On completion of a print run thoroughly clean the anilox immediately with the cleaning solution before storage.

Also follow the specialist advice from any on-site anilox cleaning machines for periodic cleaning.