# **Technical Data Sheet**



## Permanent Ink – Art Marker

Blend your own colour shades using our alcohol-based **Art Marker ink bases**. Unique colours can be achieved by mixing the 9 base inks in an infinite number of different ratios. Our **Art Marker inks** are also cap-off protected and have excellent adhesion properties. Perfect for Arts & Crafts, **Art Marker inks** are suitable for use with both standard or brush nibs to produce artwork on a wide range of surfaces including paper and card.

Ink	Shade <sup>§</sup>	Viscosity* (mPa.s)	pH⁺
Art Marker Clear Base	Clear	3.0	7.5
Art Marker Red Base		3.6	5.0
Art Marker Pink Base		3.6	8.2
Art Marker Orange Base		3.6	5.1
Art Marker Yellow Base	•	3.8	4.2
Art Marker Bright Yellow Base	•	4.0	6.0
Art Marker Aqua Base		3.8	6.3
Art Marker Blue Base		3.7	4.5
Art Marker Black Base		5.7	4.6

\*Viscosity is measured at 20°C, all viscosity values can vary ±1 mPa.s. <sup>§</sup>Shades are approximate and vary depend on the ink lay down;<sup>†</sup> colours may not be accurately represented on some computer screens / from certain printers; <sup>‡</sup>pH variance is typically ±0.25

Density = **0.94g.cm**<sup>-3</sup>; Surface tension = **27 nNm.m**<sup>-1</sup>; Multichem inks have a  $\Delta E \leq 3$ , Approximate VOC content **855g/L** 

### Art Marker Inks in Your Pens

The performance features of all permanent inks can vary depending on the components which the inks have been paired with.

Nibs:	Polyester and acrylic; Multichem recommends a porosity of around 65% for optimum flow performance. For ultimate cap-off results Multichem recommends the use of PE nibs in particular
Reservoirs:	polyester; Multichem recommends a reservoir density of 0.185 g.cm $^{-1}$
Barrels:	PP, PE

Caps / Plugs: PP. Refer to BS 7272-1:2008 for more details

Once selected the component combination should be thoroughly tested.

For optimum performance markers should ideally be stored in a horizontal orientation and should be capped securely.

For further information about component selection, pen tests or pen storage please email <u>lab@multichem.net</u>



#### Art Marker Inks in the Environment

Multichem strives to play its part in the responsible sourcing of raw materials and manufacturing of inks to help protect the environment.

#### Art Marker Inks in Your Factory

Multichem **Art Marker inks** are guaranteed for 12 months from receipt when stored in the original sealed containers.

Store Multichem inks between 10°C <T< 30°C to avoid ink adverse performance features.

Multichem inks which have passed their shelf life may still be fine to use. To find this out simply follow the guidelines above to obtain a uniform 100g sample of ink, label the ink with the product name and batch number and send it to Multichem for a quality check.

Please remember that **Art Marker inks** are flammable liquids so please handle accordingly. For more information please refer to the CLP Material Safety Data Sheet for the **Art Marker Ink** range.

#### Art Marker Inks in the Market

Multichem has developed Art Marker to comply with;

☑ ASTM D-4236 TRA

Final markers may also require separate approval in order to meet some of the above regulations.

Our inks do not contain any Substances of Very High Concern (SVHC), Benzene, Toluene or Xylene. None of our inks require labelling under Proposition 65 (assuming a maximum reservoir capacity of 12ml).

All ingredients of **Art Marker** have been registered / pre-registered under REACh or are exempt from REACh registration

Disclaimer: It is your responsibility as the writing instrument manufacturer to establish the overall safety and fitness for purpose of the marker components incorporating our inks and to establish overall compliance to regulations and legislation related to the industry. All marker pen components should be thoroughly tested by you for compatibility with our inks. Multichem makes no guarantees (either express or implied) with respect to this technical data or our advice regarding component selection. Multichem will not accept any liability for any loss arising in connection with this technical data or the recommendations expressed within (other than that resulting from our gross negligence). Please contact your component suppliers for more specific advice regarding component suitability and selection. The information contained within this technical data sheet is not exhaustive and you should verify the performance of your final product Form No: TDS010 Revision No: 006 Issue Date: 04/01/2017 1 of 1