Technical Data Sheet



Fluorescent Dry Erase Inks – FDE

Our range of fluorescent dry erase inks (**FDE**) offer eye-catching colours that stand out under both UV (black) light and normal daylight conditions. Available in vivid colours that are visually striking on both black and white dry erase boards **FDE** inks are quick drying, have excellent erasure and fluoresce under UV light. **FDE** inks are ideal for creating attention-grabbing displays in shops, bars, restaurants, and even at home or in the office

| Ink | Shade§ | Typical Viscosity* (mPa.s) | pH⁺ |
|--------------------|------------|-------------------------------|-----|
| FDE Bright White | \bigcirc | 45.0 ^Ħ | 7.9 |
| FDE Arctic White | \bigcirc | 45.0 ^H | 9.4 |
| FDE Hot Pink | • | 16.0 | 7.6 |
| FDE Radiant Red | | 19.1 | 7.6 |
| FDE Flaming Orange | | 16.6 | 7.6 |
| FDE Fiery Amber | | 15.4 | 7.5 |
| FDE Zesty Lemon | • | 17.0 | 7.6 |
| FDE Glowing Green | | 18.1 | 7.7 |
| FDE Brilliant Blue | | 16.5 | 7.6 |
| FDE Vivid Violet | | 17.7 | 7.4 |

*Viscosity is measured at 20°C, all viscosity values can vary ±2.5 mPa.s, [#]Viscosities of **FDE** whites can vary ±5 mPa.s, [§]colour shades are approximate and vary depend on the ink lay down;[†] colours may not be accurately represented on some computer screens / from certain printers; ‡pH variance is typically ±0.5

Density = **1.01 g.cm**⁻³; Surface tension = **27 nNm.m**⁻¹; Multichem inks have a $\Delta E \leq 3$, Approximate VOC content **657 g/L**

FDE in Your Pens

FDE inks are designed for use with valve action markers. In order to avoid a pressure build up, the valve should be activated after assembly by depressing the nib.

| Nibs: | Polyester, high porosity; Multichem recommends a porosity of around 70% for optimum flow performance. |
|----------|-------------------------------------------------------------------------------------------------------------|
| Barrels: | PP, PE, Aluminium |
| Caps: | PP and HDPE. Refer to BS 7272-1:2008 for more details |

Once selected the components 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>

FDE 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. **FDE** inks have been developed to be as environmentally friendly as possible, as such all **FDE** inks contain at least **40%** renewable materials.



FDE in Your Factory

Multichem **FDE** 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.

FDE inks readily settle out during storage. This is completely normal. Prior to usage drums should be stored for at least 24 hours at room temperature (circa 20°C) and then thoroughly agitated until the ink is of a uniform consistency prior to use. Continuous stirring is recommended whilst filling the marker components.

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.

FDE in the Market

Multichem has developed FDE to comply with all relevant health & safety and regulatory demands which means that all end users of the inks are suitably protected.

☑ EU / US / CA TRA
☑ 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 FDE 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 un 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 subability 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: TDS014 Revision No: 101 Issue Date: 09/12/2016