

Technical Information

Highlighter Inks

● General Information

Multichem offers two types of highlighter inks - Pigmented and Dye-based. Both types are copy-fax compatible. All inks are EN71 Part 3 and ASTM D-4236 approved. EN71 Part 9 grades and 1:1 concentrates are also available for our pigmented inks (Minimum order quantity applies).

- Pigmented– Lightfast, water resistant and suitable for free ink systems
- Dye-based - Economic with superb fluorescence. Low light fastness in yellow & green and not water resistant. Dye-based inks are highly alkaline.
- 1:1 concentrate - Take one part by weight of the concentrate and dilute it with one part by weight of water. The water must not be contaminated with bacteria. Microbiological contamination of the ink must be prevented.

● Available Colours

Pigmented	
● HLP Green	● HLP Orange
● HLP Yellow	● HLP Cyan Blue
● HLP Pink	● HLP Red

Dye-based	
● HLD Yellow	● HLD Green

1:1 Concentrate	
● HLP Green	● HLP Orange
● HLP Yellow	● HLP Cyan Blue
● HLP Pink	● HLP Red

● Typical Physical Properties

Pigmented Colours (*particle size 0.15 microns*)

Ink	Viscosity (22°C) (±0.6 mPa.s)	Surface Tension (±3.0mNm/m)	pH (±0.5)
● Green	3.2	38	6.5
● Yellow	3.2	38	6.5
● Pink	3.2	38	6.5
● Orange	3.2	38	6.5
● Cyan Blue	3.2	38	6.5
● Red	3.2	38	6.5

Dye-based Highlighter Inks

Ink	Viscosity (22°C) (±1.0 mPa.s)	Surface Tension (±3.0mNm/m)	pH (±0.7)
● Green	4	38	10.0
● Yellow	4	38	10.0

mPa.s = milli-Pascal-second

mNm/m = milli Newton metre per metre

1:1 Concentrate (*particle size 150 nm*)

Ink	Viscosity (22°C) (±3.0 mPa.s)	Surface Tension (±2.0mNm/m)	Density (±0.02g/ml)	pH (±0.5)
● Green	10.0	39	1080	6.5
● Yellow	10.0	39	1080	6.5
● Pink	10.0	39	1080	6.5
● Orange	10.0	39	1080	6.5
● Cyan Blue	10.0	39	1080	6.5
● Red	10.0	39	1080	6.5

mPa.s = milli-Pascal-second

mNm/m = milli Newton metre per metre

● **Approvals**

US	European
ASTM D-4236	EN71-3:1994

Component Selection Advice

Component	Details
Nibs	High porosity polyester and sintered polyethylene nibs are recommended. Polyester nibs must be alkaline resistant if used with dye based inks.
Reservoir	Polyester or polypropylene reservoirs are recommended. Acetate reservoirs are not suitable for dye based inks.
Barrel	Polyolefin types are recommended but PVC is also compatible. Styrenics give poor shelf life but otherwise operate well.
Head/Tail Caps	

We strongly recommend you test your components for compatibility with our inks.