

## Technical Information

### Flip Chart Ink

#### General Information

This water-based ink delivers bold colours balanced to ensure the ink will not soak through to the next page of your flip chart, a common problem with other inks. Our Flip Chart inks are non-toxic.

- Water-based
- Quick drying & non-toxic
- Bold colours for clear presentations
- Bleed-resistant
- For use on light and heavyweight flip chart pads
- Xylene, toluene and benzene free

#### Available Colours

Standard	
● Black	● Red
● Blue	● Green

#### Typical Physical Properties

Ink	Viscosity (20°C) (cP)	Density (20°C) (g.cm <sup>-3</sup> )	Surface Tension (mNm/m)	pH
● Black	2.36	1.14	37	5.08
● Blue	2.34	1.11	37	6.48
● Red	1.81	1.09	34	7.19
● Green	1.85	1.12	36	7.48

cP = centipoise

g.cm<sup>-3</sup> = grams per cubic centimetre

mNm/m = milli Newton metre per metre

#### Bleed Through Resistance

Ink	Lightweight Pad	Heavyweight Pad
● Black	4	5
● Blue	4	5
● Red	4	5
● Green	4	5

5 = Excellent

4 = Very good

3 = Good

2 = Poor

1 = Very Poor

0 = Failure

**Test Method Summary** – The markers are written onto flip chart paper of varying weights. Bleed through to the next sheet is assessed visually

● Light Fastness

Ink	Light Fastness (8 hours exposure to mercury vapour light source)
● Black	4
● Blue	2
● Red	4
● Green	2

5 = Excellent

4 = Very good

3 = Good

2 = Poor

1 = Very Poor

0 = Failure

**Test Method Summary** – The colour intensity is assessed visually. The light fastness is assessed visually after exposure to a mercury vapour light source for 8 hours

● Typical Cap-off Performance (23°C, 50% Relative Humidity)

Polyester Chisel tip

Ink	2 hours	4 hours	6 hours	8 hours	1 day	2 days
● Black	●	●	●	●	●	●
● Blue	●	●	●	●	●	●
● Red	●	●	●	●	●	●
● Green	●	●	●	●	●	●

● =writing normally

● =marker drying out

● = not writable

**Test Method Summary** – cap-off is tested to ISO 554 (23°C / 50% RH); the writing performance of the markers is assessed daily until they are not writable

● Approvals

US	European
ASTM D-4236	EN71-3:1994
16 CFR 1500.3 (max reservoir capacity is 20ml)	
TSCA	
Proposition 65	

*NB: our inks are suitable for use in marker pens intended for children of 3 years and above, however it is the pen manufacturer's responsibility to establish the overall safety and fitness for purpose of the product incorporating Multichem inks.*

● Marker Storage Advice

For optimum performance, markers should ideally be stored capped securely.

● Component Selection Advice

Component	Details
Nib	Polyester or acrylic
Reservoir	Polyester with polypropylene wrapping
Barrel	Polypropylene (PP)
Head/Tail Caps	Polypropylene (PP)