

Technical Information

Ball Pen Ink – Standard Range

General Information

- Suitable for use in plastic & metal refills
- Compatible with tungsten carbide and stainless steel balls – standard range suits 0.8mm – 1.2mm tips
- For use with stainless steel, nickel silver and brass housings
- Clear drain feature*
- Guaranteed shelf life of at least 2 years in PP tubes for HQ and Med inks – 12 months for Economy inks and Green Medium

*Variations in polymer can affect clear drain feature

Multichem ball pen inks are available in three ranges – Standard, Low Viscosity and Ultra Low Viscosity. We also offer a choice of three grades – High Quality, Medium and Economy.

Available Colours

- Black, Blue, Red & Green

Typical Physical Properties

High Quality Grade

Ink	ISO 12757 Compliance		Clear Drain	Viscosity (20°C) (cP) +/- 1000	Tropicalised	pH +/- 0.5	Light Fastness	Starting
	Part 1	Part 2						
● HQ Black 1	Yes	Yes	Yes	18,000	Yes	6.6	Good	Excellent
● HQ Blue 1	Yes	Yes	Yes	20,000	Yes	6.8	Fair	Excellent
● HQ Red 1	Yes	Yes	Yes	20,000	Yes	6.4	Good	Excellent

Medium Grade

Ink	ISO 12757 Compliance		Clear Drain	Viscosity (20°C) (cP) +/- 1000	Tropicalised	pH +/- 0.5	Light Fastness	Starting
	Part 1	Part 2						
● M Black 1	Yes	Yes	Yes	16,250	Yes	6.18	Fair	Excellent
● M Black 2	Yes	Yes	Yes	18,250	Yes	6.50	Good	Excellent
● M Blue 1	Yes	Yes	Yes	20,000	Yes	6.8	Fair	Excellent
● M Red 1	Yes	Yes	Yes	21,500	Yes	6.9	Good	Excellent
● M Green 1	Yes	Yes	Yes	14,000	Yes	6.3	Good	Excellent

Economy Grade

Ink	ISO 12757 Compliance		Clear Drain	Viscosity (20°C) (cP) +/- 1000	Tropicalised	pH +/- 0.5	Light Fastness	Starting
	Part 1	Part 2						
● E Black 1	**	**	Yes	16500	Yes	7.5	Fair	Good
● E Black 2	**	**	Yes	17750	Yes	6.9	Fair	Good
● E Blue 1	**	**	Yes	23750	Yes	6.5	Fair	Good
● E Blue 2	**	**	Yes	23700	Yes	7.1	Fair	Good
● E Red 1	**	**	Yes	23500	Yes	6.3	Fair	Good

** Trials with specific points and inks recommended as performance differences will affect results.

Storage

Ball pen inks should be stored at temperatures not exceeding 30°C. Sub-zero temperatures should also be avoided. Shelf-life and performance may be affected if stored outside recommended conditions.

Component Selection Advice

Component	Details
Tip housing	stainless steel, nickel silver or brass
Ball	tungsten carbide and stainless steel
Refill tube	polypropylene (PP) or metal

Regulations

Ball pen ink conforms to the requirements of the following;

- US Standard Requirements - ASTM D-4236
- European Standard Requirements - EN71-3:1994 (Migration of Certain Elements)