Technical Information

PM 5 Paint Marker Ink

General Information

Our paint marker inks can be used in a wide range of applications both indoors and outside. Perfect for arts and crafts applications such as posters, greeting cards and signs, they are also ideal for industrial environments e.g. factories, construction sites, the logging industry and in schools, at home or in the garden.

PM5 will mark virtually any surface resulting in a high-impact, durable, rub-resistant permanent mark. It dries to form a glossy, opaque and intense mark offering considerable advantage over regular permanent inks. The end result is similar in effect to using brush and paint but delivered in a convenient, easy-to-use marker system.*

- Weather-resistant
- Alcohol-based
- Lightfast
- Water-resistant
- Opaque marking
- Xylene, benzene and toluene free

**Paint marker inks are designed for use in valve-action markers with high porosity nibs for optimum flow.*

Available Colours

Standard	
Black	Green
White	Violet
Blue	Pink
Red	Gold
Yellow	Silver

Typical Physical Properties

Ink	Drying Time (23°C 50% RH) (secs)	Viscosity (20°C) (cP)	Density (20°C) ($g.cm^{-2}$)	Surface Tension (mNm/m)	pH
PM 5 Black	20	14.96	0.96	26	7.13
PM 5 White	40	26.91	1.11	26	6.98
Blue	20	26.00	1.10	26	6.73
Red	20	26.01	1.10	26	7.09
Yellow	30	13.80	1.10	26	7.32
Green	20	29.79	1.10	26	7.11
Violet	20	27.23	1.10	26	6.99
Pink	20	29.79	1.10	26	7.64
PM 5 Gold	35	12.18	1.10	26	7.74
PM 5 Silver	25	19.10	0.98	26	6.32

cP = centipoise
$g.cm^{-3}$ = grams per cubic centimetre
mNm/m = milli Newton metre per metre

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Light Fastness and Colour Intensity

Ink	Colour Intensity	Light Fastness (8 hours exposure to mercury vapour light source)
PM 5 Black	5	4
PM 5 White	5	4
Blue	5	4
Red	5	4
Yellow	5	4
Green	5	4
Violet	5	4
Pink	5	4
PM 5 Gold	5	4
PM 5 Silver	5	4

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*

Rub Resistance

Ink	Glass	Ceramic	Aluminium	Brass	Steel	Brick	Stone	Wood	Rubber	Polythene
PM 5 Black	5	5	5	5	5	5	5	5	5	5
PM 5 White	5	5	5	5	5	5	5	5	5	5
Blue	5	5	5	5	5	5	5	5	5	5
Red	5	5	5	5	5	5	5	5	5	5
Yellow	5	5	5	5	5	5	5	5	5	5
Green	5	5	5	5	5	5	5	5	5	5
Violet	5	5	5	5	5	5	5	5	5	5
Pink	5	5	5	5	5	5	5	5	5	5
PM 5 Gold	5	5	5	5	5	5	5	5	5	5
PM 5 Silver	5	5	5	5	5	5	5	5	5	5

5 = Excellent | **4 = Very good** | **3 = Good** | **2 = Poor** | **1 = Very Poor** | **0 = Failure**

Test Method Summary *– a comparative test where the test surface is repeatedly rubbed with a dry fingertip*

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Tape Resistance

Ink	Glass	Ceramic	Aluminium	Brass	Steel	Brick	Stone	Wood	Rubber	Polythene
PM 5 Black	5	5	5	5	5	5	5	5	5	5
PM 5 White	5	5	5	5	5	5	5	5	5	5
Blue	5	5	5	5	5	5	5	5	5	5
Red	5	5	5	5	5	5	5	5	5	5
Yellow	5	5	5	5	5	5	5	5	5	5
Green	5	5	5	5	5	5	5	5	5	5
Violet	5	5	5	5	5	5	5	5	5	5
Pink	5	5	5	5	5	5	5	5	5	5
PM 5 Gold	5	5	0	3	3	5	5	5	5	5
PM 5 Silver	5	5	0	0	3	5	5	5	5	5

5 = Excellent | **4 = Very good** | **3 = Good** | **2 = Poor** | **1 = Very Poor** | **0 = Failure**

Test Method Summary *– the tape is applied to the test surface and light pressure is applied with the finger to remove air bubbles. After a period of 10 minutes the tape is removed at an angle of 90°*

Scratch Resistance

Ink	Glass	Ceramic	Aluminium	Brass	Steel	Brick	Stone	Wood	Rubber	Polythene
PM 5 Black	5	5	5	5	5	5	5	5	5	5
PM 5 White	5	5	5	5	5	5	5	5	5	5
Blue	5	5	5	5	5	5	5	5	5	5
Red	5	5	5	5	5	5	5	5	5	5
Yellow	5	5	5	5	5	5	5	5	5	5
Green	5	5	5	5	5	5	5	5	5	5
Violet	5	5	5	5	5	5	5	5	5	5
Pink	5	5	5	5	5	5	5	5	5	5
PM 5 Gold	5	5	5	5	5	5	5	5	5	5
PM 5 Silver	5	5	5	5	5	5	5	5	5	5

Test Method Summary *– a comparative test where the test surface is repeatedly scratched with a finger nail after one hour drying time*

Approvals

US	European
ASTM D-4236	EN71-9:2005
16 CFR 1500.3 (max reservoir capacity is 12ml)	EN71-3:1994
TSCA	TRA
Proposition 65	Annex XVII EU Regulation 1907/2006 (Phthalates)
CPSIA Total Lead in Substrates	
CPSIA Total Phthalates Content	

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 in the horizontal orientation and should be capped securely.

Component Selection Advice

Component	Details
Nib	Polyester (high porosity)
Barrel	Aluminium
Head/Tail Caps	Polypropylene (PP)

**Paint marker inks are designed for use in valve-action markers. The marker should always be shaken thoroughly prior to use to ensure an even consistency of ink. It is recommended to place a stainless steel or glass ball inside the barrel to help agitate the ink when the marker is shaken.*

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

Storage and Handling Advice

Please note that paint marker inks readily settle out during storage. This is completely normal. The containers of ink should be shaken thoroughly prior to use, and continuous stirring is recommended whilst filling the marker components.

Ethanol solvent is suitable for cleaning equipment which has come into contact with paint marker ink.