

BST DETECTABLE MARKER PENS

VARIOUS NIBS & INKS | DETECTABLE CAPS & CASING

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Product Specifications

ST1* | Revised September 2018



Our range of metal detectable & x-ray visible marker pens are designed specifically to reduce the risk of foreign body contamination in food and pharmaceutical processing environments. Our range is available with permanent, drywipe, highlighter, UV and food markings inks, in fine, medium and chisel nibs.

Our marker pens are manufactured in Great Britain using specialised polymers which contain evenly dispersed, non-toxic, ferrous and high density additives. This makes the plastic highly susceptible to detection by both metal detection and x-ray inspection systems. (Subject to correct calibration)

Product Advantages:

- ✓ Detectable by metal detection & x-ray inspection systems
- ✓ Highly visible bright blue body colour for easy visual identification
- ✓ Variety of ink types and nib styles
- ✓ Usage displays "Due Diligence" in the prevention of foreign body contamination

Nib Styles:

Medium Bullet	Fine Nib	Chisel Nib
		



BS Teasdale & Son Ltd. Unit 7, Delta Court, Sky Business Park, Robin Hood Airport, Doncaster, South Yorkshire, DN9 3GN
Tel: 0845 643 0950 Email: sales@detectable-products.co.uk Web: www.detectable-products.co.uk

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Ink Types:

- Sureflow™ Permanent Ink: *Designed for marking plastic, glass, wood & metal. Touch dry in 20 seconds. Sureflow™ additive means that the pen will continue to write for several days with the cap left off.*
- Sureflow™ Drywipe Ink: *Designed for non-permanent marking of whiteboards and other glossy, wipeable surfaces. Sureflow™ additive means that the pen will continue to write for several days with the cap left off.*
- Highlighter Ink: *Designed for vibrant highlighting applications on papers and cardboards.*
- Meat & Cheese Ink: *Designed for writing on meat, cheese and other animal products. Contains only ingredients suitable for human consumption, including Ethyl alcohol and food colourants. More data available on request.*
- Ultra Violet Ink: *Designed for security marking on tools, machinery and other production assets. Invisible to the naked eye, however brightly visible under UV lighting.*
- Specialist Inks: *Subject to minimum production runs we can also offer specialist inks such as fast drying inks, plastic marking inks, xylene inks, and more.*

Pack Weight: 0.2Kg per Pack

Product Materials:	Cap	HDPE with metal detectable & x-ray visible additives
	Body	HDPE with metal detectable & x-ray visible additives
	Nib	Acrylic
	Ink Reservoir	Polyester
	End Plug	LLDPE with metal detectable & x-ray visible additives

Ink Safety: Ink if used in a normal way is not considered hazardous, however in the event of abnormal use; if ingestion is suspected give plenty of water to drink and seek medical attention, if eye contact occurs irrigate with water for 10 minutes and seek medical attention, if inhalation occurs remove from exposure – seek fresh air and in severe cases seek medical attention.



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Product Ordering Codes:

Product	Ink Type	Nib Style	Ink Colour	Pack Size	Order Code
BST Detectamark™	Permanent	Medium Bullet	Black	10	ST1M1000MBK
BST Detectamark™	Permanent	Medium Bullet	Blue	10	ST1M1000MBB
BST Detectamark™	Permanent	Medium Bullet	Red	10	ST1M1000MBR
BST Detectamark™	Permanent	Medium Bullet	Green	10	ST1M1000MBG
BST Detectamark™	Permanent	Medium Bullet	Multicolour Pack	10	ST1M1000MBZ
BST Detectamark™	Permanent	Fine Nib	Black	10	ST1M5000MBK
BST Detectamark™	Permanent	Fine Nib	Blue	10	ST1M5000MBB
BST Detectawipe™	Dry Wipe	Medium Bullet	Black	10	ST1D2000MBK
BST Detectawipe™	Dry Wipe	Medium Bullet	Blue	10	ST1D2000MBB
BST Detectawipe™	Dry Wipe	Medium Bullet	Red	10	ST1D2000MBR
BST Detectawipe™	Dry Wipe	Medium Bullet	Green	10	ST1D2000MBG
BST Detectawipe™	Dry Wipe	Medium Bullet	Multicolour Pack	10	ST1D2000MBZ
BST Detectawipe™	Dry Wipe	Fine Nib	Black	10	ST1D5000MBK
BST Detectawipe™	Dry Wipe	Fine Nib	Blue	10	ST1D5000MBB
BST Detectalite™	Highlighter	Chisel Nib	Blue	10	ST1H3000MBB
BST Detectalite™	Highlighter	Chisel Nib	Yellow	10	ST1H3000MBY
BST Detectalite™	Highlighter	Chisel Nib	Orange	10	ST1H3000MBO
BST Detectalite™	Highlighter	Chisel Nib	Pink	10	ST1H3000MBP
BST Detectalite™	Highlighter	Chisel Nib	Green	10	ST1H3000MBG
BST Detectalite™	Highlighter	Chisel Nib	Multicolour Pack	10	ST1H3000MBZ
BST UV Security Marker	Ultra Violet	Medium Bullet	Invisible	10	ST1UV4000MBU
BST Meat & Cheese Marker	Meat Marking	Medium Bullet	Brown	10	ST1M1000MBM



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Food Contact Status (EU) HDPE Material

Hereby we declare that the material HDPE is manufactured in line with the relevant requirements of 2023/2006/EC on good manufacturing practice (GMP) for materials and articles intended to come into contact with food.

The raw materials used in the manufacturing process of the above mentioned materials can be considered suitable for food contact applications in terms of compliance with European regulations. The raw materials used meet the relevant requirements of EU Framework Regulation 1935/2004 on materials and articles intended to come into contact with food.

All monomers, starting substances and additives used to manufacture these grades are listed in Commission Regulation (EU) No. 10 (2011) on plastic materials and articles intended to come into contact with food.

Colourants used are compliant with European Council Resolution AP(89) 1 on the use of colourants in plastic materials coming into contact with food.

Food Contact Status (FDA) HDPE Material

The polypropylene base resin used in HDPE meets the FDA (Food and Drug Administration) requirements contained in the Code of Federal Regulations – latest revision (1/4-2011) - in 21 CFR 177.1520 (a) (3) (i) , (b) and (c) (3.1a).

At the same time this base resin grade meets the FDA criteria in 21 CFR 177.1520 for food contact applications, excluding cooking, listed under conditions of use C through H in 21 CFR 176.170 (c), Table 2., and can be used in contact with all food types as listed in 21 CFR 176.170 (c), Table 1. Also the mineral additives and the pigments used are GRAS (Generally Recognized As Safe) or are FDA cleared under specific FDA citations.

Food Contact Status LLDPE Material

The raw materials used in the manufacturing process of LLDPE are compliant with the Commission Regulation (EU) No. 10/2011 on plastic materials intended to come in to contact with food including its amendments. Under FDA regulations, the listed material is confirmed as generally recognized as safe (GRAS).

Migration Testing

The following overall migration results for HDPE were obtained using a UKAS accredited laboratory, with overall migration simulants and conditions as detailed in EU Regulation No 10/2011 as amended, with regards to use with all food types (no fatty food factor applied).

Sample: HDPE-2016/138
Test conditions: 10 days at 40°C

Method	EN-1186-3 Migration into 10% v/v Ethanol (Simulant A)	EN-1186-3 Migration into 3% w/v Acetic Acid (Simulant B)	EN-1186-2 Migration into Olive Oil (Simulant D2)
Replicate #1	0.4 mg/dm ²	0.6 mg/dm ²	1.3 mg/dm ²
Replicate #2	0.2 mg/dm ²	0.4 mg/dm ²	0.0 mg/dm ²
Replicate #3	0.1 mg/dm ²	0.5 mg/dm ²	0.0 mg/dm ²
Replicate #4			1.9 mg/dm ²
Mean Result	0.2 mg/dm²	0.5 mg/dm²	0.8 mg/dm²
EU Limit	10.0 mg/dm²	10.0 mg/dm²	#10.0 mg/dm²

#Limit and tolerance are quoted after the application of a fatty food reduction factor of 2 as quoted in EU Regulation 10/2011



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To summarise the overall migration test results, the HDPE complies with the overall migration requirements given in EU Regulation 10/2011, as amended, with regards to use with all non-fatty foods, aqueous foods and fatty foods that require a reduction factor of 2 (or greater), as given in EU regulation 10/2011, as amended.

Detectability

The body, cap and plug of our markers are manufactured from detectable polymers. These polymers contain evenly dispersed non-toxic detectable additives, making the material detectable by correctly calibrated metal detection systems and x-ray inspection systems.

Metal detectability performance will vary based on, but not limited to the following factors:

- Detector Calibration Levels
- Food Product Type (E.g. Wet, Dry, Frozen, Liquid)
- Aperture Dimensions
- Contaminant Orientation

For this reason BST recommend that all our products be thoroughly tested on your metal detection systems by a trained and certified professional. It may be the case that your equipment needs to be recalibrated in order to reliably detect this product and its fragments. Such a professional should be available by contacting the manufacturer of your metal detection system.

DISCLAIMER

The information provided in this product specification sheet is based on our experience and knowledge to date and we believe it to be true and reliable. This information is intended as a guide for your use of our products, the use of which is entirely at your own discretion and risk. We, BS Teasdale & Son Ltd, cannot guarantee favourable results and assume no liability in connection with the use of our products. © 2014 BS Teasdale & Son Ltd. All Content, Data & Images are owned by BS Teasdale & Son Ltd and are protected by international copyright law.



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