V 2.0 May 2025

Product Specification Sheet

BST Retractable Permanent Marker | BSTRPM**



Product Description

The BST Retractable Permanent Markers are manufactured using our flagship XDETECT® plastic compound - optimised for metal and x-ray detection in the food and pharmaceutical industries.
This range also incorporates antibacterial technology, which is effective against E-Coli, MRSA & Salmonella.

This makes them an essential tool for enhancing safety and traceability in sensitive environments such as food processing, pharmaceuticals, and other hygiene-critical industries.The Permanent Markers feature a polyester bullet style nib, also available as a fine tip, ideally shaped for writing and marking.

BST Retractable Permanent Marker Pen Advantages

- ✓ Detectable by in-line metal detection systems & x-ray inspection systems
- ✓ Incorporates antibacterial technology to protect against pathogenic germs and moulds
- ✓ Highly visible bright blue body colour for easy visual identification
- ✓ Features a polyester bullet style nib ideal for writing and marking
- ✓ Available in a standard bullet tip or fine tip
- ✓ Sureflow ink means the pen will continue to write for several days with the nib left out
- ✓ Compliant with EU & FDA food contact legislation, including mandatory EU migration test standards
- ✓ Can be used as part of HACCP and BRC procedures
- ✓ Displays due diligence in the prevention of foreign body contamination

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Product and Packaging Information

Standard Nib Code	BSTRPM*	**Fine Tip Nib Code**	BSTRPFT*
Dimensions	145.5mm x 15.5mm∅	**Dimensions**	140mm x 11.5mm∅
Ink Colour(s)	B,K,R,G	**Ink Colour(s)**	B,K,R,G
Write Out Length	300m +/- 20%	**Write Out Length**	150m +/- 20%
Pack Weight	0.194 kg	**Pack Weight**	0.132 kg
Pack Size	10	**Clip Material**	ABS
Body Colour(s)	Blue	**AntiBacterial**	Yes
Nib Material	Polyester	**Detectability**	Metal & X-Ray Visible
Nib Style	Bullet & Fine	**Country Of Origin**	South Korea
Body Material	BST XDETECT®	**Commodity Code**	39233090

Ink Specification

The ink complies with the requirements of Regulation (EC) No. 1907/2006. And regulation (EC) No. 12721/2008

Safety Certificates / Approvals

FDA Approved	BRCGS Compliant
EU Compliant	ISO 9001:2015

Handling and Storage

Store at normal room temperature, keep away from direct heat and keep in original container.

Ink Properties

This ink does not contain any substances of very high concern (SVHC), Benzene, Toluene or Xylene. This substance is not identified as a PBT substance.

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Ink Safety

Ink contact with skin is not considered hazardous when coming into contact with skin through normal use. In the event of abnormal use causing health problems please refer to the below information.

Route	First Aid
Oral	Give plenty of water to drink if ingestion is suspected.
Skin Contact	Wash skin with soap and water.
Eye Contact	Irrigate with water for ten minutes - obtain medical attention.
Inhalation	Remove from exposure - in severe cases obtain medical attention.

Animal Derivatives

To the best of our knowledge there are no ingredients in the formulation of this material that is of animal origin. As such, this material should not pass on any animal derived disease like BSE (Bovine Spongiform Encephalopathy) or other TSE (Transmissible Spongiform Encephalopathy).

Food Contact Status (EU)

Hereby we declare that the material XDETECT® in various colours is manufactured in line with the relevant requirements of 2023/2006/EC as amended by Commission Regulation (EC) 282/2008, 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 (XDETECT® in various colours) 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 as amended by (EU) 321/2011, (EU) 1282/2011, (EU) 1183/2012, (EU) 202/2014, (EU) 2015/174, (EU) 2016/1416, (EU) 2017/752, (EU) 2018/79, (EU) 2018/213, (EU) 2018/831, (EU) 2019/37, (EU)2019/1338, and (EU) 2020/1245 respectively, related to Plastic Materials and Articles intended to come into contact with foodstuffs.

Colourants used are compliant with European Council Resolution AP(89) 1 on the use of colourants in plastic materials coming into contact with food, and also with German BfR Recommendations (IX).

BST Detectable Products hereby declare that articles manufactured from BST XDETECT® are, according to EU regulations, authorised to come into direct contact with all types of foodstuffs at a maximum temperature of 40°C for a maximum time period of one hour.

Food Contact Status (FDA)

The polypropylene base resin used in XDETECT® meets the FDA (Food and Drug Administration) requirements contained in the Code of Federal Regulations 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.

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Food Contact Status (ABS)

Hereby we declare that the materials ABS are manufactured in line with the relevant requirements of 2023/2006/EC as amended by Commission Regulation (EC) 282/2008, 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 meet the relevant requirements of EU Framework Regulation 1935/2004 on materials and articles intended to come into contact with food.

The monomers, starting substances and additives used are listed in Annex I of the consolidated Commission Regulation No.10/2011 as amended by (EU) 321/2011, (EU) 1282/2011, (EU) 1183/2012, (EU) 202/2014, (EU) 2015/174, (EU) 2016/1416, (EU) 2017/752, (EU) 2018/79, (EU) 2018/213, (EU) 2018/831, (EU) 2019/37, (EU)2019/1338, and (EU) 2020/1245 respectively, related to Plastic Materials and Articles intended to come into contact with foodstuffs.

The colourant used in the formulation of the ABS is compliant with European Council Resolution AP(89)1 on the use of colourants in plastic materials coming into contact with food, and also with German BfR Recommendations (IX). The carbon black used in the formulation of the ABS Black is specifically tested to by the supplier to ensure continuous compliance with carbon black (CAS 1333-86-4, FCM Substance No 411) purity requirements and specific restrictions/specifications mentioned in Annex I of the Commission Regulation (EU) No 10/2011, and the content in the formulation is far below the threshold level of 2.5 wt. % maximum allowed.

Migration Testing

The following overall migration results for XDETECT® were obtained using a UKAS accredited laboratory, with overall migration simulants and conditions as detailed in EU Regulation No 10/2011 as amended, on plastic materials and articles intended to come into contact with food.

Sample: PP-C-2013/393
Test conditions: Simulants A, B and 95%v/v ethanol: 10 days at 40°C. Iso-octane: 2 days at 20°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-1186-14§ Migration into Iso-octane (Substitute test)	EN-1186-14§ Migration into 95% Ethanol (Substitute test)
Replicate #1	0.2 mg/dm2	0.5 mg/dm2	19.4 mg/dm2	0.8 mg/dm2
Replicate #2	0.3 mg/dm2	0.5 mg/dm2	21.0 mg/dm2	0.9 mg/dm2
Replicate #3	0.0 mg/dm2	0.3 mg/dm2	20.8 mg/dm2	0.6 mg/dm2
Mean Result	0.2 mg/dm2	0.4 mg/dm2	20.4 mg/dm2	0.8 mg/dm2
EU Limit	10.0 mg/dm2	10.0 mg/dm2	#20.0 mg/dm2	10.0 mg/dm2
Tolerance			#6.0 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. To summarise the overall migration test results, the PP-C-2013/393 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.

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Metal Detectability

This product is 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:

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

Orientation is a highly influential factor for the metal detectability of a contaminant that is non spherical, i.e. it will be easier to detect the contaminant when passing in one orientation compared to another - this is known as the orientation effect.

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 re-calibrated in order to reliably detect this product. Such a professional should be available by contacting the manufacturer of your metal detection system.

X-Ray Visibility

In contrast to metal detection, x-ray visibility is determined by material density. For this reason, our markers contain an additional, evenly dispersed, food safe, high density additive. X-ray detection performance will be reduced when small fragments are buried in deeper, denser products - detection will depend on product type and density.

We highly recommend that all our products be thoroughly tested on your x-ray inspection 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. Such a professional should be available by contacting the manufacturer of your x-ray inspection system.

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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. © 2024 BS Teasdale & Son Ltd. All Content, Data & Images are owned by BS Teasdale & Son Ltd and are protected by international copyright law.

BS Teasdale & Son Ltd. Unit 7, Delta Court, Sky Business Park, Doncaster, South Yorkshire, DN9 3GN
Tel: +44(0)1302 775208 **Email:** sales@bst-detectable.com **Web:** www.bst-detectable.com