



## BST Retractable Detecta-Mark-R | RPM-\*



### Product Description

The BST retractable permanent marker features metal detectable and x-ray visible external and internal plastic components made from our specially formulated XDETECT® Polypropylene compound.

Our retractable markers boast all the same properties as other pens in the BST range, including FDA, EU, and Japanese food contact approvals.

They are shatter resistant, lanyard compatible, have colour co-ordinated retractable push inserts, sureflow ink and we are proud to say 'Made in Britain'.

The BST retractable permanent marker ink is suitable for permanently marking surfaces, including wood, plastic, glass, concrete or metals.

### BST Retractable Detecta-Mark-R Advantages

- ✓ Detectable by in-line metal detection systems & x-ray inspection systems
- ✓ Highly visible bright blue body colour for easy visual identification
- ✓ Permanently marks most surfaces including wood, plastic, glass, concrete and metal
- ✓ Shatter resistant, lanyard compatible and feature Sureflow ink
- ✓ 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

## Product and Packaging Information

<b>Product Code</b>	ST1M1000RDB*	<b>Detectability</b>	Metal & X-Ray Visible
<b>Pack Size</b>	10	<b>AntiBacterial</b>	No
<b>Pack Weight</b>	0.30kg	<b>Housing Material</b>	BST XDETECT®
<b>Body Colours</b>	Blue	<b>Nib Material</b>	Polyester
<b>Ink Colours</b>	B,K,R,G	<b>Commodity Code</b>	96082000

## Ink Specification

✓ ASTM D-4236 TRA

## Safety Certificates / Approvals

FDA Approved	Kosher Certified	ISO 9001:2015
EU Compliant	BRC Compliant	Made In Britain



## Handling and Storage

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

## Ink Properties

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This ink does not contain any substances of very high concern (SVHC), Benzene, Toluene or Xylene.

Property	Value
Hazard Identification	With normal use, no known hazards
Stability / Reactivity	Product is stable
Eco Toxicity	Harmful to aquatic organisms and to the aquatic environment in general.
Regulatory Information	R11: Highly Flammable. R22 Harmful if swallowed. R52/53: Harmful to aquatic organisms, may cause long-term effects in the aquatic environment. S25: Avoid contact with eyes. S:26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

## Ink Safety

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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

## Ink Temperature Range

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The permanent ink will work in temperature ranges up to 50°C. They will also work in freezing temperatures however, if the cap is left off the nib for longer periods of time at freezing temperatures the nib will solidify due to the surfactant additive that is used to stop the ink from drying out.

## Food Contact Status (EU)

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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)

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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.

## Food Contact Status (Japan)

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The base resin (PP copolymer) used in the manufacturing process of the above mentioned compounds is listed in the Positive List of Base Polymers (Table 1). The additives used in the manufacturing process of the PP-C resin are listed in the Positive List of Additives (Table 2) authorised for use in this base resin.

## Animal Derivatives

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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).

## 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/dm <sup>2</sup>	0.5 mg/dm <sup>2</sup>	19.4 mg/dm <sup>2</sup>	0.8 mg/dm <sup>2</sup>
Replicate #2	0.3 mg/dm <sup>2</sup>	0.5 mg/dm <sup>2</sup>	21.0 mg/dm <sup>2</sup>	0.9 mg/dm <sup>2</sup>
Replicate #3	0.0 mg/dm <sup>2</sup>	0.3 mg/dm <sup>2</sup>	20.8 mg/dm <sup>2</sup>	0.6 mg/dm <sup>2</sup>
Mean Result	0.2 mg/dm <sup>2</sup>	0.4 mg/dm <sup>2</sup>	20.4 mg/dm <sup>2</sup>	0.8 mg/dm <sup>2</sup>
EU Limit	10.0 mg/dm <sup>2</sup>	10.0 mg/dm <sup>2</sup>	#20.0 mg/dm <sup>2</sup>	10.0 mg/dm <sup>2</sup>
Tolerance			#6.0 mg/dm <sup>2</sup>	

#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.

## DetectaMark® Metal Detectability

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BST Retractable DetectaMark® pens are made using XDETECT®, an electromagnetically detectable and x-ray visible plastic compound. Within the pen housing is a stainless steel ink cartridge. The metal detectability of this product 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.

## DetectaMark® X-Ray Visibility

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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.

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. © 2022 BS Teasdale & Son Ltd. All Content, Data & Images are owned by BS Teasdale & Son Ltd and are protected by international copyright law.