

# BST XDETECT® TIE ID TAG

METAL DETECTABLE | X-RAY VISIBLE | SNAP RESISTANT

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## Product Specifications

Revised July 2018



### Key Features:

- ✓ Metal Detectable
- ✓ X-Ray Visible
- ✓ Snap Resistant
- ✓ Adjustable
- ✓ High Strength
- ✓ Available in 6 colours
- ✓ FDA Approved
- ✓ EU 10/2011 Compliant
- ✓ Made in Britain

**Colour Availability:** Blue, Green, Red, Black, Yellow, Orange

**BST Order Code:** AMXTAGD

The BST XDETECT® Tie ID Tag has been specifically developed for use in the food industry to address concerns of contamination from plastic tags.

These tags are suitable for a variety of applications including the tagging of machinery and other assets. As well as being metal detectable and x-ray visible, these tags are also highly shatter and snap resistant, making them less likely to cause contamination.

Available in a variety of six colours, these handy detectable plastic ID tags can also integrate into your factory colour scheme, assisting with your HACCP process and BRC compliance. These tags are ideal to be used with BST detectable permanent markers.

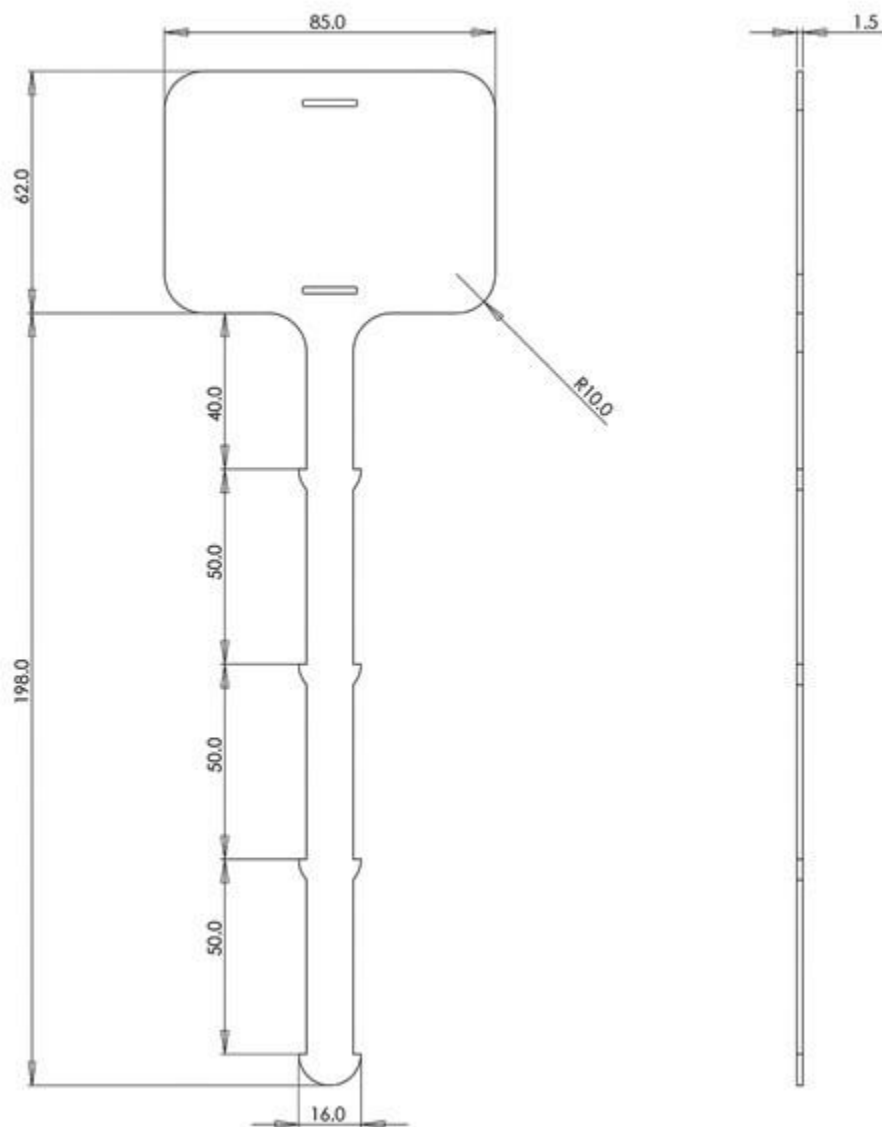


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## Technical Drawing:



*BST Detectable Products are proud to be in partnership with BRC global standards. BST are committed to helping our customers reduce foreign body contamination through innovative and high quality detectable products. BST are proud to support UK manufacturing and manufacture this product in Great Britain.*

In Partnership with



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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## Food Contact Status

Hereby we declare that the material XDETECT in various colours 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 as amended up to 202/2014/EC 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. Applicable restrictions on monomers, additives etc. (SML, QM) are available on request. The finished articles are required to meet the Overall Migration Limit (OML) of 10 mg/dm(sq) or 60 mg/kg 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.

XDETECT (various colours) is compliant with Directive 1895/2005/EC on the restriction of use of certain epoxy derivatives (BADGE, BFDGE, NOGE), since the latter substances are not intentionally used in the manufacturing process of XDETECT.

The following overall migration results for XDETECT sample plaques were obtained using a UKAS accredited laboratory, with the full report available upon request.

### Overall migration according to EU Commission Regulation (EU) No. 10 (2011) on plastic materials and articles intended to come into contact with food:

**Sample (2)** 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.

Sample: 2) 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) mg/dm <sup>2</sup>	EN 1186-3 Migration into 3% w/v acetic acid (Simulant B) mg/dm <sup>2</sup>	EN 1186-14§ Migration into Iso-octane (Substitute test) mg/dm <sup>2</sup>	EN 1186-14§ Migration into 95% ethanol (Substitute test) mg/dm <sup>2</sup>
Replicates				
1	0.2	0.5	19.4	0.8
2	0.3	0.5	21.0	0.9
3	0.0	0.3	20.8	0.6
<b>Mean result</b>	<b>0.2</b>	<b>0.4</b>	<b>20.4</b>	<b>0.8</b>
<b>Limit</b>	<b>10.0</b>	<b>10.0</b>	<b>#20.0</b>	<b>10.0</b>
<b>Tolerance</b>			<b>#6.0</b>	



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## Statement of EU Food Contact Compliance

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.

## Statement of USA Food Contact Compliance

The polypropylene base resin used in XDETECT 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.

## Metal Detectability (FOR GUIDANCE ONLY)

BST XDETECT is an electromagnetically detectable and x-ray visible plastic compound. The metal detectability of this compound will vary based on, but not limited to the following factors:

- Detector Calibration Levels
- Food Product Type / Effect (E.g. Wet, Dry, Frozen, Liquid)
- Detector 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. Such a professional should be available by contacting the manufacturer of your metal detection system. XDETECT samples gave following test piece equivalent readings when tested through the geometric centre of an Anritsu KD8124AW coaxial metal detection system with a 95 x 450 mm aperture:

XDETECT Contaminant Size	Advised Minimum Ferrous Sensitivity for Detection
4.0 mm <sup>3</sup> Cube	2.0 mm FE
6.0 mm <sup>3</sup> Cube	2.5 mm FE
7.0 mm Ø Sphere	2.5 mm FE
8.0 mm <sup>3</sup> Cube	3.5 mm FE
11.0 mm Ø Sphere	4.0 mm FE



Although designed to be detected as a ferrous contaminant, XDETECT will also trigger smaller readings as a non-ferrous and stainless steel contaminant. Please note that the above information is for guidance only, and performance will vary.



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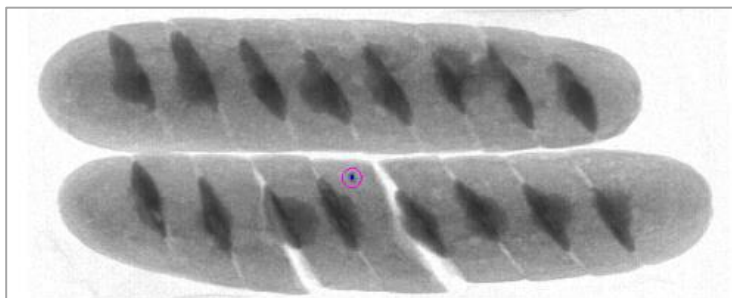
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## X-Ray Visibility (FOR GUIDANCE ONLY)

In contrast to metal detection, x-ray visibility is determined by material density. For this reason, XDETECT contains an additional, evenly dispersed, food safe, high density additive.

Based on our experience and testing, positive readings should be consistent for XDETECT fragments as small as 5mm<sup>3</sup>. X-ray detection performance will be reduced when small fragments are buried in deeper, denser products. **Detection will depend on product type and density.** This screenshot shows a 5mm<sup>3</sup> XDETECT fragment through a popular x-ray inspection system, inside a packaged garlic bread product.



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.

## 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.



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