



BST DetectaBox® | BSTBOXB



BST DetectaBox®

The BST DetectaBox® is designed to address the problem of box fragments contaminating food products. This problem can occur whenever a food storage or handling box is subject to more wear and tear than usual and is at risk of breaking or chipping.

The DetectaBox® is manufactured using XDETECT®, BST's flagship and industry renowned metal detectable and x-ray visible plastic. This plastic is

designed entirely with food safety in mind. As well as being highly detectable it is also strong, hardwearing, brightly coloured, chemical resistant, shatter resistant, FDA approved and EU compliant.

The first in the DetectaBox® range is a standard Euro size of 600x400x220. Also available are matching heavy duty caster dollies (non-detectable) for the easy transportation of stacked boxes on the factory floor.

BST DetectaBox® Advantages

- ✓ Detectable by in-line metal detection systems & x-ray inspection systems
- ✓ Bright blue for easy visual identification
- ✓ Standard Euro sized stackable boxes which are compatible with a caster dolly
- ✓ Strong, durable, shatter resistant & chemically resistant material
- ✓ 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

Product Code	BSTBOXB	Accessories	Caster Dolly
Pack Size	1	Stacking Height	10 Units
Pack Weight	2.15kg	Box Walls and Base	Solid
Colour	Blue	Material	BST XDETECT®
Capacity	43.8L / 1 ½ Cubic Feet	Detectability	Metal & X-Ray Visible
Outside Dimensions	600 x 400 x 220mm	Country Of Origin	Germany
Inside Dimensions	545 x 345 x 205mm	Commodity Code	39269097

Safety Certificates / Approvals

FDA Approved	EU Compliant	BRCGS Compliant	ISO 9001:2015
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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.

Food Contact Status (Japan)

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

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 Hi

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	0.5 mg/dm ²	0.5 mg/dm ²	26.0 mg/dm ²	0.9 mg/dm ²
Replicate #2	0.5 mg/dm ²	0.7 mg/dm ²	26.0 mg/dm ²	1.0 mg/dm ²
Replicate #3	0.2 mg/dm ²	0.6 mg/dm ²	27.7 mg/dm ²	0.8 mg/dm ²
Mean Result	0.4 mg/dm ²	0.6 mg/dm ²	26.6 mg/dm ²	0.9 mg/dm ²
EU Limit	10.0 mg/dm ²	10.0 mg/dm ²	#30.0 mg/dm ²	10.0 mg/dm ²

#Limit and tolerance are quoted after the application of a fatty food reduction factor of 3 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 3 (or greater), as given in EU regulation 10/2011, as amended.

Metal Detectability

The BST DetectaBox® is made using XDETECT®, an electromagnetically detectable and x-ray visible plastic compound. The metal detectability of this product will vary based on, but not limited to:

- 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, XDETECT® contains 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. © 2023 BS Teasdale & Son Ltd. All Content, Data & Images are owned by BS Teasdale & Son Ltd and are protected by international copyright law.