FEATURING XDETECT® DUAL DETECTABLE HANDLES

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### **Product Specifications**

### The XDETECT<sup>®</sup> Catering Knife Range

Our range of professional quality catering knives are manufactured in Sheffield, England, a city with a rich steel and knife making heritage. Our knife blades are made from fully hardened, tempered stainless steel and are easy to clean.

Our handles are insert moulded from BST XDETECT, which will withstand dishwasher use and has the advantages of being detectable by metal detection and x-ray inspection systems. Blue handled detectable catering knives are kept in stock at BST, with other coloured knives manufactured to order. The wide range of XDETECT colours available means that your business can benefit from a high quality, colour co-ordinated, dual detectable and cost effective selection of professional knives.

By combining the latest BST detectable technology with specialist knife making expertise, we have created a very special series of professional knifes that meet the needs of food processors across the globe.

The products detailed in this specification sheet represent our standard range of detectable knives. If you have a specific requirement then we will most likely be able to cater for your needs. We can supply a variety of bespoke knives to suit our customer needs, such as double handled knives and knives with a variety of finishes such as serrated or wavy edged blades (scalloped edge).

### **Product Advantages:**

- Fully detectable by in-line metal detection systems
- Fully detectable by in-line x-ray inspection systems
- ✓ 8 Bright handle colours for easy visual identification
- Strong, durable & shatter resistant handles
- Compliant with EU & FDA food contact legislation
- Hardened and tempered stainless steel blades
- Displays due diligence in the prevention of foreign body contamination
- Can be used as part of HACCP and BRC procedures



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Knife Description	Blade Sizes	Blade Styles	Handle Colours	Product Code
BST Scoring Knife	3" Blade	Standard Blade	Blue Red Green Yellow Black White Orange Pink	KN45060D
BST Mini Parer Knife	3" Blade 4" Blade 3" Blade 4" Blade	Standard Blade Standard Blade Serrated Blade Serrated Blade	Blue Red Green Yellow Black White Orange Pink	KN44500D KN44507D KN64500D KN64507D
BST Vegetable Knife (Straight)	) 3.5" Blade	Standard Blade Scalloped Blade	Blue Red Green Yellow Black White Orange Pink	KN44518D KN24519D
BST Vegetable Knife (Pointed)	3.5" Blade	Standard Blade Scalloped Blade	Blue Red Green Yellow Black White Orange Pink	KN44516D KN24514D
BST Vegetable Knife	3.5" Blade 4" Blade 3.5" Blade 4" Blade	Standard Blade Standard Blade Scalloped Blade Scalloped Blade	Blue Red Green Yellow Black White Orange Pink	KN44520D KN44530D KN24520D KN24530D

Please note that handle colours other than blue are subject to a minimum order of 10 knives per product.



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Knife Description	Blade Sizes	Blade Styles	Handle Colours	Product Code
BST Vegetable Produce Knife	6" Blade 6" Blade	Standard Blade Scalloped Blade	Blue Red Green Yellow Black White Orange Pink	KN44106D KN24106D
BST Curved Boning Knife	5" Blade 6" Blade	Standard Blade Standard Blade	Blue Red Green Yellow Black White Orange Pink	KN47515D KN47516D
BST Narrow Boning Knife	5" Blade 6" Blade	Standard Blade	Blue Red Green Yellow Black White Orange Pink	KN47507D KN47521D
BST Regular Boning Knife	5" Blade 6" Blade 7" Blade	Standard Blade	Blue Red Green Yellow Black White Orange Pink	KN47509D KN47510D KN47511D
BST Narrow Flexible Filleting Knife	5" Blade 6" Blade	Standard	Blue Red Green Yellow Black White Orange Pink	KN47519D KN47520D



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Knife Description	Blade Sizes	Blade Styles	Handle Colours	Product Code
BST Broad Flexible Filleting Knife	6.5" Blade	Standard Blade	Blue Red Green Yellow Black White Orange Pink	KN47522D
BST Skinning/Siding Knife	6" Blade 7" Blade	Standard Blade	Blue Red Green Yellow Black White Orange Pink	KN47500D KN47501D
BST Light Cooks Knife	3" Blade 4" Blade 6" Blade 7" Blade 8" Blade	Standard Blade	Blue Red Green Yellow Black White Orange Pink	KN47643D KN47644D KN47646D KN47647D KN47648D
BST Cooks/Chefs Knife	6.25" Blade 7.5" Blade 8.5" Blade 10" Blade 12" Blade	Standard Blade	Blue Red Green Yellow Black White Orange Pink	KN47656D KN47657D KN47658D KN47650D KN47652D
BST Broad Cooks Knife	8" Blade 10" Blade	Standard	Blue Red Green Yellow Black White Orange Pink	KN47618D KN47610D



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Knife Description	Blade Sizes	Blade Styles	Handle Colours	Product Code
BST Dough Knife	8" Blade	Standard Blade	Blue Red Green Yellow Black White Orange Pink	KN47858D
BST Narrow Scimitar Steak Knife	8" Blade 10" Blade 12" Blade	Standard Blade	Blue Red Green Yellow Black White Orange Pink	KN47628D KN47620D KN47622D
BST Scimitar Butchers Knife	6" Blade 7" Blade 8" Blade 9" Blade 10" Blade 11" Blade 12" Blade	Standard	Blue Red Green Yellow Black White Orange Pink	KN47606D KN47607D KN47608D KN47609D KN47600D KN47601D KN47602D
BST Bread Knife	8" Blade	Scalloped	Blue Red Green Yellow Black White Orange Pink	KN13025D
BST Bagel Slicer Knife	8" Blade 10" Blade	Serrated & Scalloped Blade	Blue Red Green Yellow Black White Orange Pink	KN24198D KN24190D



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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:

Method	Simulant A (10% v/v Ethanol)	Simulant B (3% w/v Acetic Acid)	Simulant C (Olive Oil)
	(2 Hours @ 70°C)	(2 Hours @ 70°C)	(2 Hours @ 70°C)
Replicate #1	0.5 mg/dm <sup>2</sup>	0.1 mg/dm <sup>2</sup>	2.6 mg/dm <sup>2</sup>
Replicate #2	0.7 mg/dm <sup>2</sup>	0.0 mg/dm <sup>2</sup>	2.9 mg/dm <sup>2</sup>
Replicate #3	0.8 mg/dm <sup>2</sup>	0.2 mg/dm <sup>2</sup>	3.3 mg/dm <sup>2</sup>
Replicate #4	-	-	2.7 mg/dm <sup>2</sup>
Mean Result	0.7 mg/dm <sup>2</sup>	0.1 mg/dm <sup>2</sup>	2.9 mg/dm <sup>2</sup>
EU Limit	10.0 mg/dm <sup>2</sup>	10.0 mg/dm <sup>2</sup>	10.0 mg/dm <sup>2</sup>
EU Compliance	COMPLIANT	COMPLIANT	COMPLIANT

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

Substance	Test Simulant	Test Temperature	Time	EU Limit	Result	EU Compliance
Barium	3% Acetic Acid	40°C	1 Hour	1000 µg/kg	146 µg/kg	COMPLIANT
Bis(2-ethylhexyl)phthalate DEHP	Olive Oil	40°C	1 Hour	1500 µg/kg	-	COMPLIANT
Bis(n-butyl)phthalate DBP	Olive Oil	40°C	1 Hour	300 µg/kg	-	COMPLIANT

#### 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.



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### 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 nonferrous and stainless steel contaminant. Please note that the above information is for guidance only, and performance will vary.

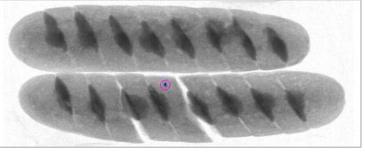
### X-Ray Visibility (FOR GUIDANCE ONLY)

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 consistant for XDETECT fragments as small as

5mm<sup>3</sup>. X-ray detection performance will be reduced when small fragments are burried 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.

