

PRODUKTINFORMATIONEN

Product Specifications

| January 2020



The Detectapen Range

The Detectapens are industry renowned as the highest quality choice of stationery for use in hygiene critical food processing environments. Every feature of the pen is designed with the food industry in mind, resulting in a truly unique set of properties designed to minimise contamination risks and improve food safety.

The Detectapen range is manufactured using our flagship XDETECT plastic compound - optimised for metal and x-ray detection in the food and pharmaceutical industries. Our Detectapen range also incorporates silver ion antibacterial technology, which is effective against E-Coli, MRSA & Salmonella. All materials used in the construction of our pens feature extensive food contact approvals including EU & FDA compliance.

Our ECO style Detectapen has a hexagonal profile to stop the pen rolling from surfaces. All Detectapen designs feature minimal germs traps and are ergonomically designed making them easy to hold, so less likely to be dropped.

All Detectapens are available with or without a dual detectable clip. The clip is moulded in to the pen making it near impossible to snap off without the use of tools. All Detectapens feature high quality metal ink cartridges, further adding to the detectability of the pen.

Detectapen Range Advantages

- ✓ Detectable by in-line metal detection systems & x-ray inspection systems
- ✓ Incorporates antibacterial technology to protect against pathogenic germs and moulds
- ✓ Compatible with PDA touchscreen devices (*Resistive Technology*)
- ✓ Strong, durable, shatter resistant & chemically resistant material
- ✓ Compliant with EU & FDA food contact legislation, including mandatory EU migration test standards
- ✓ Available in a variety of body styles and ink types to suit specific requirements
- ✓ Can be used as part of HACCP and BRC procedures
- ✓ Displays due diligence in the prevention of foreign body contamination

PRODUKTINFORMATIONEN

Product Description: The ECO PDA Detectapen is a great value for money detectable PDA stylus. The beautifully simple design comprises of only two components, the PDA nib and the pen body. The PDA nib is compatible with resistive touch screens such as those used on PDA devices in factories, hospitals and logistics. This nib is not compatible with capacitive touch screens (such as smart phones) which rely on human touch.

The ECO PDA pen features a hexagonal profile, which assists with grip and also stops the pen rolling on uneven work surfaces. The ECO PDA pen is also available with or without its XDETECT clip.

Please note that the clip does not constitute an additional pen component, as clipped pens are moulded from one piece material, meaning the clip will not fall off and become a potential contaminant. The clip is also designed to bend – not snap off.

Housing Material:	XDETECT [<i>Polypropylene Co-Polymer</i>]	
Cartridge Material:	N/A	
Order Code:	8900101-B	[Blue PDA pen with clip]
Pack Size:	10 Pack	
Pack Weight:	0.05 Kg	
Body Colours:	Blue Only	
Ink Colours:	N/A	
Write Out Length:	N/A	
Ink Specifications:	N/A	

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 – 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.

Detectapen Antibacterial Technology

Detectapen products are manufactured from XDETECT with built in silver ion antimicrobial technology, supplied by our partners SteriTouch. This technology offers continuous protection against cross infection, reducing the risk of spreading pathogenic germs such as MRSA, E.Coli and Salmonella. The antibacterial surface protection harnesses the natural sterilising properties of silver; this protection is permanently embedded into the XDETECT compound and will not wear off over time.

These antibacterial properties have been laboratory tested and proven to be effective against harmful bacteria and mould including but not limited to:

PRODUKTINFORMATIONEN

Bacterium

Bacillus Cereus
Bacillus Subtilis
Campylobacter
Klebsiella Pneumonia
Pseudomonas Aeruginosa
Streptococcus Mutavs
Vibri Parahaemolyticus MRSA
E.Coli
 Salmonella

Fungus

Aspergillus Niger
Aureobasidium Pullulans
Candida Albicans
Cladosporium Cladosporioides
Fusarium Solani
Penicillium Funiculosum Streptococcus Pyogenes

The antibacterial additive used in XDETECT complies with the relevant requirements of Regulation 1935/2004/EC (Framework Regulation), applicable to intermediate materials (e.g. plastic powders, plastic granules or plastic flakes) and also with the relevant requirements of Regulation 10/2011/EC (PIM), applicable to intermediate materials (e.g. plastic powders, plastic granules or plastic flakes).

The monomers and additives used to produce the antibacterial additive are listed in the Union List of Authorized Substances of Regulation 10/2011/EC. Dual use additives subject to restrictions in food as defined in Regulation 10/2011/EC are not intentionally used in the manufacture of or formulation of this product.

Antibacterial Laboratory Testing Method:

All testing is conducted by an independent laboratory using the JIS Z 2801:2000 test method. Where possible, all test materials are taken from samples of the actual product. Samples typically measure 50mm x 50mm as specified by the JIS Z 2801:2000 method, although where this is impractical it is permissible to use smaller samples with the method being modified accordingly.

Each test sample is inoculated with a suspension of the test organism (for example MRSA). The inoculum is held in contact with the test sample using a sterile polyethylene film. All test samples are inoculated in triplicate, with an additional three replicates of the control.

The bacterial population on three control replicates is evaluated immediately following inoculation. This is assumed to be the initial population on all test samples. The remaining samples are incubated for the test period (typically 24 hours) at 35°C, at which time the bacterial population is evaluated.

Antibacterial Laboratory Testing Results:

Salmonella Results Table

Sample Material	Bacterium	CFU at 0 Hours	CFU at 24 Hours	Comparison
Control	Salmonella. enteritidis	150000	140000	N/A
XDETECT	Salmonella. enteritidis	150000	<10	99.999% reduction

MRSA Results Table

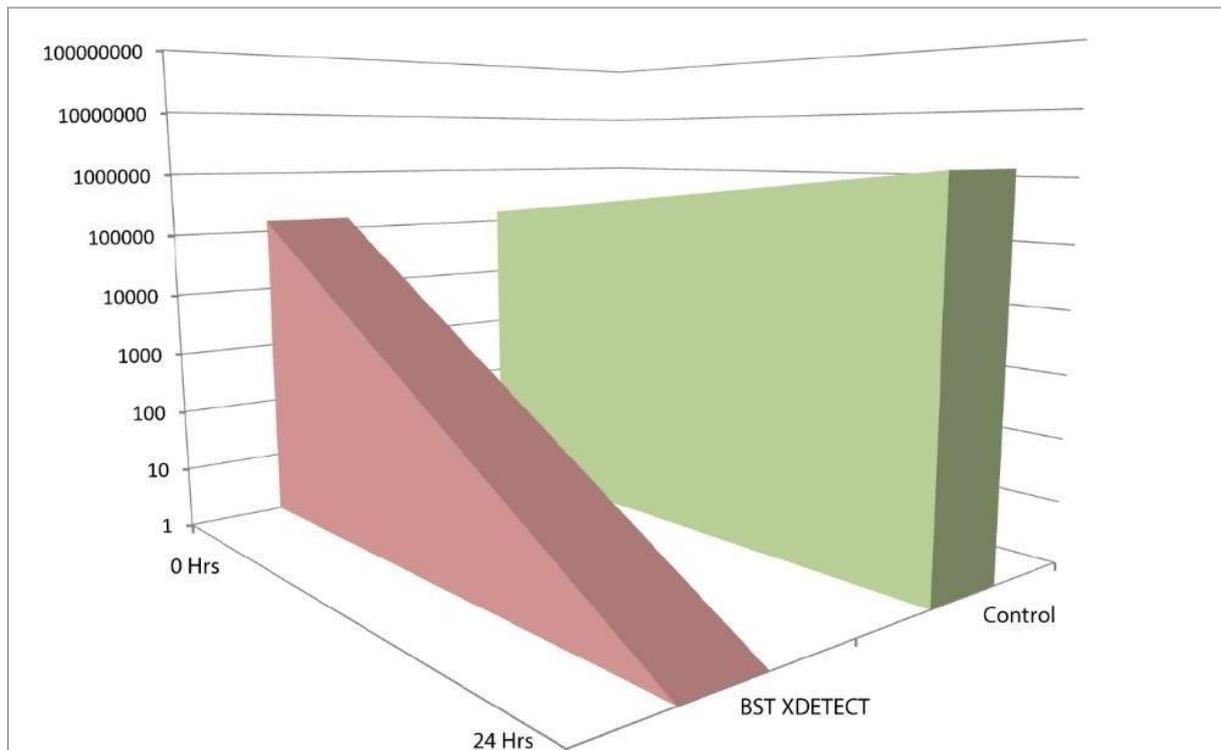
Sample Material	Bacterium	CFU at 0 Hours	CFU at 24 Hours	Comparison
Control	MRSA	100000	470000	N/A
XDETECT A	MRSA	100000	<10	99.998% reduction
XDETECT B	MRSA	110000	<10	99.998% reduction
XDETECT C	MRSA	110000	<10	99.998% reduction

PRODUKTINFORMATIONEN

E. Coli Results Table

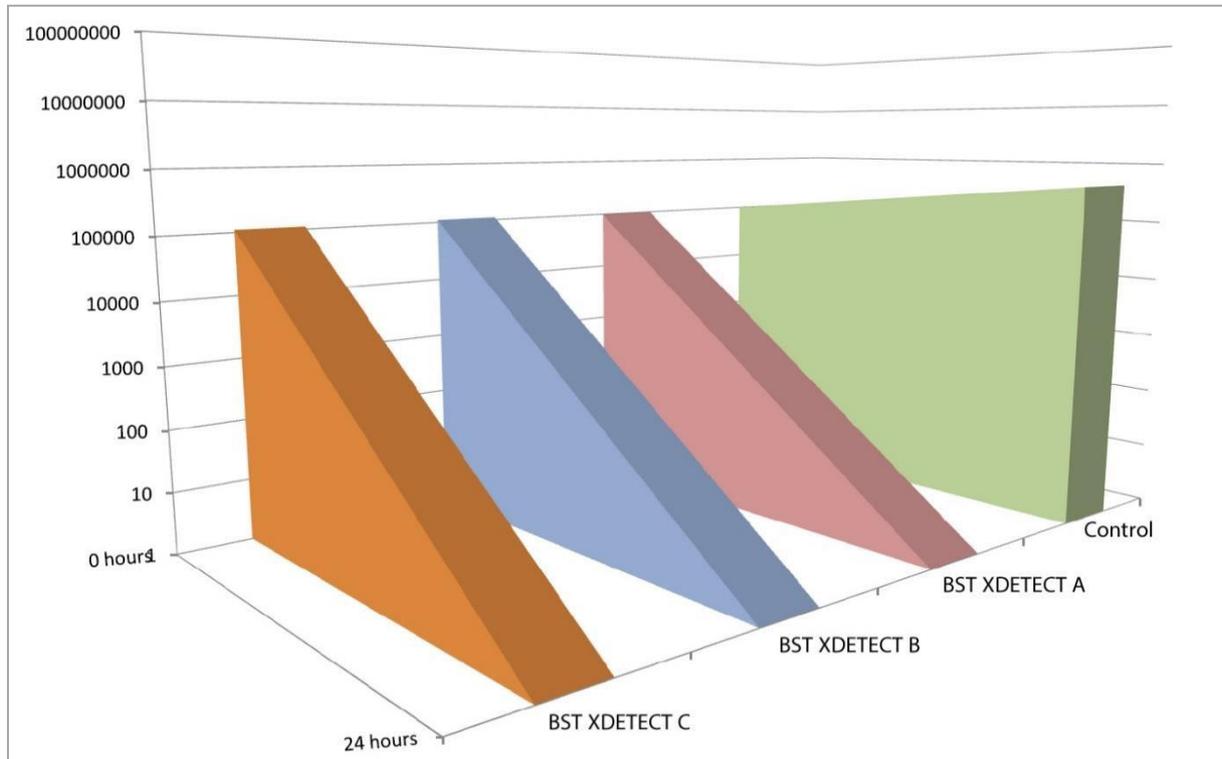
Sample Material	Bacterium	CFU at 0 Hours	CFU at 24 Hours	Comparison
Control	E. Coli	140000	11000000	N/A
XDETECT A	E. Coli	140000	<10	99.999% reduction
XDETECT B	E. Coli	140000	<10	99.999% reduction
XDETECT C	E. Coli	140000	<10	99.999% reduction

Salmonella Results Graph

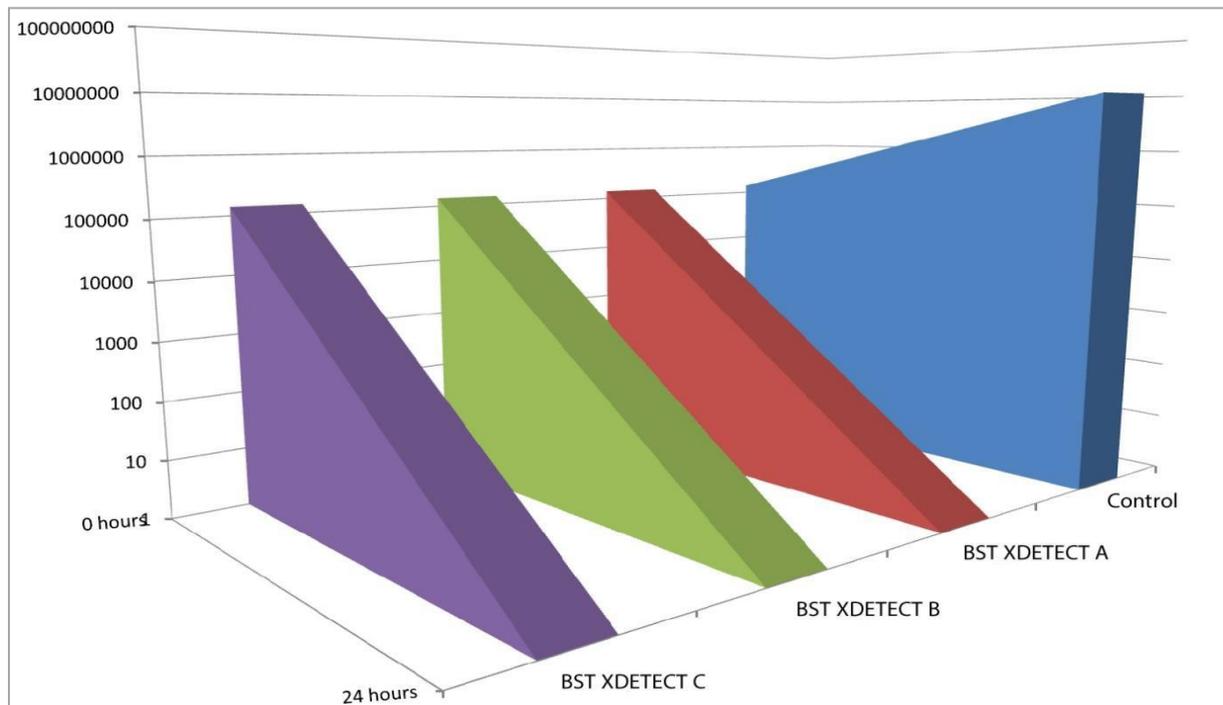


PRODUKTINFORMATIONEN

MRSA Results Graph



E. Coli Results Graph



PRODUKTINFORMATIONEN

Metal Detectability

The ECO PDA Detectapen's 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:

- 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 Niebling 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.

Detectapen 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.

Based on our experience and testing, positive readings should be consistent both for whole pens and XDETECT fragments as small as 5mm. 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.

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, Niebling Technische Bürsten GmbH, cannot guarantee favourable results and assume no liability in connection with the use of our products.