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A-Care Detectable Plasters

DETECTABILITY REPORT

INTRODUCTION

The Food Safety Act 1990 states

> "It shall be a defence for the person charged to prove that he took all reasonable precautions and exercised all due diligence to avoid the commission of the offence by himself or by a person under his control."

Hence Metal Detection is widely recognised as an essential part in most manufacturing plants, especially in the food and pharmaceutical industries. The use of detectable wound dressings is therefore of paramount importance to reduce and possibility of products entering the food.

The main reasons for insisting on an effective metal detection system are;

- Minimising metal contamination
- Minimising costs
- Protection of the customer and consumer
- Protection of brand and reputation
- Certification
- Due diligence and regulatory compliance
- Retailer and consumer brand codes

a) Minimising metal contamination

A-Care Detectable products have been developed to provide the food industries with a dependable and innovative plaster. Characteristics including good adhesion, strength and conformability help to minimise any possibility for the plasters to detach from the wearer and enter the production line.

b) Minimising Costs

Cost of failure in a metal detection programme can be high whether the contamination is discovered during manufacture, at the end of the process or once with the consumer.

c) Protection of the customer and consumer

It is the obligation of the manufacturer to minimise instances of contamination and ensure that the customer is protected and most importantly the consumer relationship is upheld.

d) Protection of brand and reputation

Brand and company reputation is important and a contaminated product in the hands of the consumer can have a negative impact on company and brand image thus making metal detection a vital part to the manufacturing process.

e) Certification

Quality systems and audits will focus highly on metal detection systems and their effectiveness in the manufacturing process.

f) Due diligence and regulatory compliance

Whilst there is no set legal requirement for metal detection in food manufacturing processes, regulatory bodies have set standards and codes of practise for manufacturers to adhere to which detail the need for protection against the exclusion of foreign objects in food.

SOURCES OF CONTAMINATION

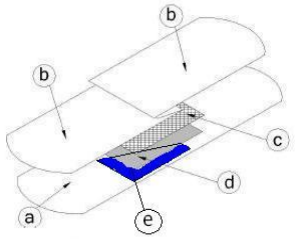
i) Raw Material – metal tags in meat, hooks in fish,
ii) Personal effects – buttons, pens, jewellery
iii) Maintenance – Screwdrivers, copper wire off cuts following electrical repairs
iv) In-plant Processing – Crushers, mixers, blenders, broken screens
v) Dressings – plasters etc.

A-CARE DETECTABLE PLASTERS

A-Care Detectable Plasters assist in proving that “all reasonable precautions and all due diligence” where taken. They are:-

- Metal Detectable
- Visually Detectable
- Provide good adhesion, strength and conformability
- Contain non-ferrous metal strip behind the wound pad

A-Care dressings are visually detectable by virtue of their blue colour. Additionally they can be detected by metal detection equipment where this is in operation – the ultimate in high security. The detectable metal strip is located behind the wound pad as illustrated in the diagram below.



Non-Perforation Type

a) Backing (Plastic film coated with acrylic adhesive)
b) Silicone paper
c) Non-adherent film covered wound pad
d) Wound pad
e) Metal Detectable Strip

Using A-Care Detectable plasters helps to minimise the costly risk of plasters entering the food chain. This will protect company reputation and ensure 100% customer satisfaction. Adhering to quality standards and recommendations will further enhance the company’s reputation and maximise customer loyalty.

An alternative product - **AeroPlast Detectable** - is a plaster which is superior in adhesive, strength, conformability and comfort greatly enhancing dressing retention and further protecting you from the possibility of contamination. This product is manufactured with the ultimate in film technology, providing a bacterial barrier which resists the ingress of water, oil and grease whilst still allowing the wound to breathe as it heals. Please see separate data sheet or click here.

METAL DETECTABILITY SETTINGS

A-Care Detectable can be detected on a metal detector setting of 2.5mm non-ferrous. This will ensure that all dressings are detected and consequently the affected product rejected.

The type of product being passed through the metal detector will further determine the settings applied.

Metal detectors respond to:

a) Amplitude Detection
Rejects when the signal exceeds a pre-determined level ideal for longer metal pieces

OR

b) Rejects when any signal is produced
Disadvantage is when any several different sizes pieces pass almost together the signal from the largest piece fools the detector, which may miss the following smaller piece.

Factors affecting sensitivity

i) Type of metal
Iron is easily detected stainless steel is not

ii) Shape of metal
Spheres are easier to detect than thin wire of the same metal – eg 1.5mm dia stainless steel ball equates to 1.6mm wire 8mm long for detection at the same setting.

iii) Orientation of metal in product
Due to the shape of the magnetic fields in a detector, certain parts of the field are more sensitive compared to others. Therefore potential blind spots can occur.

iv) Environmental conditions
A detector operating next to a hot oven, freezing tunnels or vibration affect sensitivity.

v) Product
Dry products – eg cereals easy to detect metal
Fresh meats – creates an interference signal
Pickles – the vinegar creates a false signal
Treacle – a very dense product high sensitivity required

To ensure metal detection at low sensitivities the setting pieces used are placed in the middle of products as well as on the product.

Therefore if changing from one type of product to another, the detector settings have to be changed due to the densities of the product.