

# Fibracon® Detectaflon X-ray & Metal Detectable PTFE



# X-ray and metal detectable PTFE

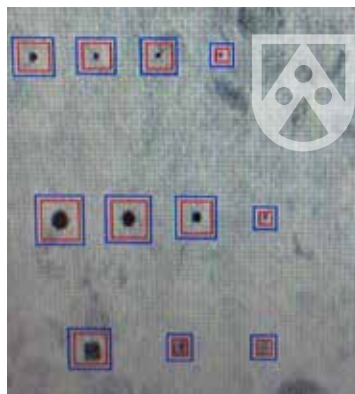
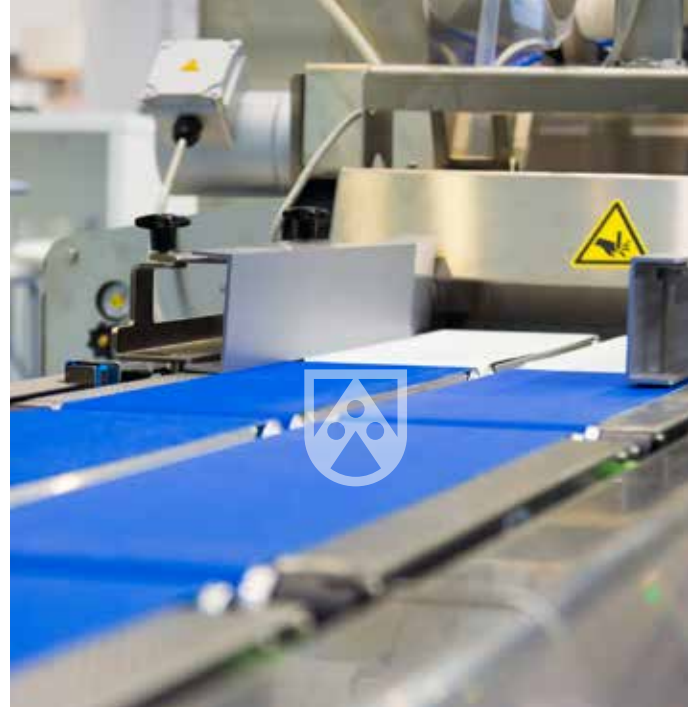
Fibracon® Detectaflon has been developed to be visible to x-ray and metal detection equipment for the food and drug processing industries.

## Protection against foreign substance contamination

- Use of existing detection systems
- Increased safety and consumer protection
- Prevention of product recalls

## Metal detection results

Detectaflon sample size	Ferrous ball equivalent
2mm cube	0.8mm
3mm cube	1.3mm
4mm cube	1.7mm
5mm cube	2.2mm



## X-ray detection limits

Food product	Dimensions	Ferrous sphere	Ceramic sphere	Soda lime glass sphere	Virgin PTFE sphere	Fibracon® Detectaflon PTFE
Mixed nut muesli	250 x 160 x 50	1.0mm	3.0mm	2.0mm	>5.0mm	3.0mm cube
Beef mince	225 x 140 x 50	0.8mm	3.0mm	2.0mm	>5.0mm	3.0mm cube
Cheddar cheese	100 x 90 x 30	0.8mm	1.5mm	1.5mm	3.0mm	2.0mm cube

## Food standards approvals

Our raw materials intended for contact with foodstuffs have undergone rigorous testing.

- FDA Directive 21 CFR 177.550 (fluoropolymers)
- FDA Directive 21 CFR 178.3297 (colourants)

The materials have been manufactured in accordance with the rules for GMP, EC/2023/2006, and there is a traceability system according to EC/1935/2004. The polymer is certified to EU 10/2011. The final product or articles should be tested for global and specific migration.

Tests for Fibracon® Detectaflon PTFE were designed and conducted to provide an estimate of the size of material that could be detected in any food source using Safeline metal or Minebea Intec Dylight x-ray machines. When the stainless steel detection size is known it is reasonable to expect the corresponding equivalent conductive material of Fibracon® Detectaflon PTFE can also be detected in the same product environment.



The material can be detected in sizes as small as 2mm<sup>3</sup>

## Physical property data

Properties	Test Method	Unit	Fibracon® Detectaflon
Specific gravity	ASTM D4894	-	2.32
Tensile strength	ASTM D4894	Mpa	28
Elongation	ASTM D4894	%	300
Hardness	Needle	Shore D	63
Coefficient of friction	ISO 7148*	-	0.22
Wear rate	ISO 7148*	mm/h	0.022

\*ISO 7148 - Tribo starting conditions: pin on ring ISO 7148, load=3,5 N, rotating speed=4m/sec, temperature=80°C, counter-surface=STST, Ra=0.25-0.35 µm, contact area of the pin: 78,5mm²

### Available as

- Machined components
- Rods
- Tubes
- Plate

### Applications

- Seals
- Nozzles
- Scraper blades
- Rollers
- Bearings
- Bushes
- Guides
- Sprockets
- Agitators
- Mixer components



Fibracon® Detectaflon machined part

## Other x-ray and metal detectable plastics from Röchling

Fibracon® Detectaflon compliments our range of x-ray and metal detectable materials.

	Polystone® M MDT (UHMWPE)	Polystone® M XDT (UHMWPE)	Sustarin® C MDT (Acetal)	Sustarin® C XDT (Acetal)	SustaPEEK XDT (PEEK)	Fibracon® Detectaflon
Metal detectable	YES	-	YES	-	-	YES
X-ray detectable	-	YES	-	YES	YES	YES

Note: It is the responsibility of the user to test and approve the use of materials in their own detection systems. Due to the variations in metal detection and x-ray detection systems and required sensitivity settings.

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