




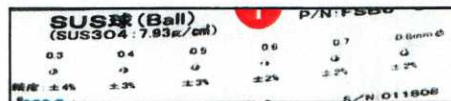


X-RAY Detection – Material Density

Material	Density (g/cc)	Probability Of Detection	Estimated Sensitivity	Estimated Sensitivity				
			Anritsu HD imaging	Typical Competitor				
Hair	< 0.50	 Not Detectable						
Insects	< 0.60							
Wood (Spruce)	0.60							
Fingernails	0.60							
Fruit Stones	0.70							
Cartilage / Joints	0.70							
Latex	0.92 – 0.96							
Polyethylene	0.92 – 0.95							
Leather	0.95							
Ice	0.92 – 0.98	Typical Product Density Range						
Meat, cooked	0.85 – 0.95							
Water	1.00							
Meat, Fresh	1.10 – 1.20							
Cookies/Biscuit's	1.10 – 1.20							
Nylon	1.14	 Very Difficult To Detect		>8.0mm	>12.0mm			
Salt	1.20					Increasing probability of detection	2.0mm – 3.0mm	3.0mm – 6.0mm
Rubber	1.30						2.5mm – 4.0mm	4.0mm – 7.0mm
Stone, crushed	1.60					Good Detection	1.5mm – 3.0mm	3.0mm – 5.0mm
Bone (Calcified)	1.55 – 1.85						1.5mm – 3.0mm	3.0mm – 5.0mm
Brick	1.92					Excellent Detection	1.5mm – 2.5mm	2.0mm – 4.0mm
Teflon	2.18						0.6mm – 0.8mm	1.0mm – 1.5mm
Concrete	2.40						0.4mm	0.8mm
Glass (Soda-Lime)	2.49							
Aluminum	2.78							
Diamond	3.30							
Ceramic	3.90							
Glass (Soda-Lime)	3.50							
Glass (Soda Lime)	5.50							
Iron	7.87							
Stainless Steel	7.93							
Brass	8.40							
Lead	11.34							

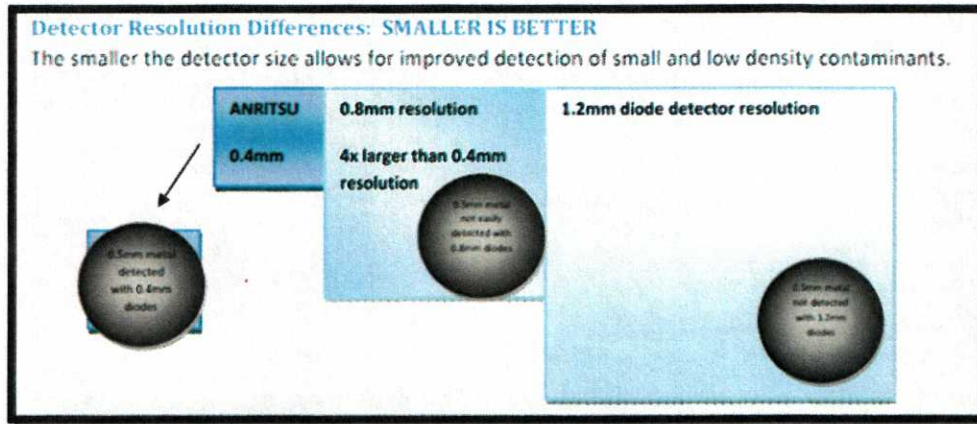
JIMA test cards are available and marked with materials, sizes & densities



Key points of reference:

1. Contaminant samples (glass, rock, etc.) can vary in density – make sure all testing is done with the **same** contaminant card/test piece
2. The higher the contaminant density the higher the probability of detection
3. X-ray detection capabilities are directly related to the x-ray imaging capability of the system (tube, detector, hardware and software)
4. When comparing sensitivities the specification **MUST** include actual density of the material and shape (sphere vs. cube)

Comparing X-Ray Technology / Sensitivity:



- Machine sensitivity is based on system, tube and detector design.
- The above example shows a 0.5mm diameter sphere compared to different common detector sizes
- Anritsu's standard HD imaging includes a 0.4mm detector, high current (food optimized) x-ray tube, advanced signal processing and common, fully functioned, software platform.
- **DEMAND the best system possible to safeguard against future changes in product/performance requirements and to provide a buffer against false rejects**

HD IMAGING/RESOLUTION:

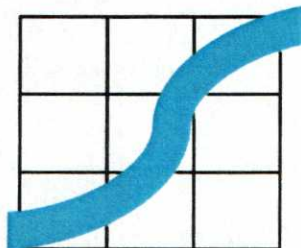


Standard Resolution Image
 How many contaminants are present?



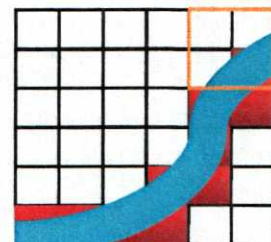
ANRITSU HD X-Ray Imaging
 Standard on all Anritsu machines since 2007!
 More than 2000 HD machines installed.

DETECTION of IRREGULAR CONTAMINANTS (wire):



Standard imaging – NOT DETECTED

Example
 0.5mm diameter wire



Anritsu HD imaging - DETECTED