

## VMS IX 80 Industrial X-ray Film

### Technical data sheet

VMS IX80 Industrial X-ray film is a medium speed film with high contrast and rendering very fine grain image quality and is suitable for automatic and manual process chemistry.

The film is imported from Japan and is suitable for use in a range of NDT applications delivering consistently high quality images for the wide range of materials examined irrespective of the radiation source.

The sensitized coating is on polyester 0.175 mm thick, blue tinted base which has excellent dimensional stability and strength and is suitable for automatic processing.

#### Features and applications

Features	Applications	Radiation types and Use
<ul style="list-style-type: none"> <li>• Medium speed</li> <li>• High contrast</li> <li>• Ultra-fine grain</li> <li>• Can be used with or without lead screens</li> <li>• Suitable with fluorescent or flouro-metallic screens</li> </ul>	<ul style="list-style-type: none"> <li>• Weldings and castings - metals with low to medium atomic number</li> <li>• For Graphite epoxy materials</li> <li>• Aircraft construction and maintenance</li> </ul>	<ul style="list-style-type: none"> <li>• Suitable for detecting minute defects</li> <li>• For inspection of low atomic number materials with low voltage X-rays and high atomic number materials with high voltage X-rays or Gamma rays</li> <li>• Ideal for direct exposures or with lead screens</li> </ul>

#### Relative speed

Relative speed			Film System Class			
X-ray 100KV (without lead)	X-ray 200KV (with lead)	Ir-192 (with lead)	C0-60 (with lead)	ASTM E1815	EN 584-1	ISO 11699-1
55	55	55	55	1	C4	C4

Based on film processed in VMS process chemistry.  
Automatic processing: at 28°C for 1.5 mins.  
Manual processing: at 20°C for 5 mins.

#### COLOR SENSITIVITY

Blue sensitive

#### SAFELIGHT

The film should be handled under a red-orange safelight filter with a 15/20 watt bulb at a distance of not less than 1 meter (3.3 feet).

### Operational guide for material type and X-ray equipment

Material		X-ray Tube Voltage (kV)	Co - 60
Type	Thicknesses - mm		
<b>Light Metals</b>	0 ~ 6	80 - 250	
	6 ~ 13	< 50 - 120	
	13 ~ 25	< 50 - 150	
	25 ~ 50	50 - 150	
	50 ~ 100	80 - 400	
	over 100	150 - 400	
<b>Iron and Steel</b>	0 ~ 6	80 - 150	
	6 ~ 13	120 - 400	
	13 ~ 25	250 - 1000	Co 60
	25 ~ 50	1000	Co 60
	50 ~ 100	1000	Co 60
<b>Bronze</b>	0 ~ 6	120 - 250	
	6 ~ 13	150 - 400	Co 60
	13 ~ 25	250 - 1000	Co 60
	25 ~ 50	1000	Co 60
	50 ~ 100	1000	

### PROCESSING

#### Manual

Process solution	Temp.	Duration
VMS Plus Developer	20°C	5 min.
Stop bath	18 - 22°C	30-40 sec.
VMS Plus Fixer	18 - 22°C	5 - 10 min.
Wash with running water	18 - 22°C	> 45 mins.
Drying with wetting agent	18 - 22°C	30 sec.

#### Auto-processor

Process solution	Temp.	Duration
VMS Plus Developer	28°C	1.5 min.
VMS Plus Fixer	31°C	
Wash water	< 31°C	
Drying	45°C	
Dry to dry time		9 min.

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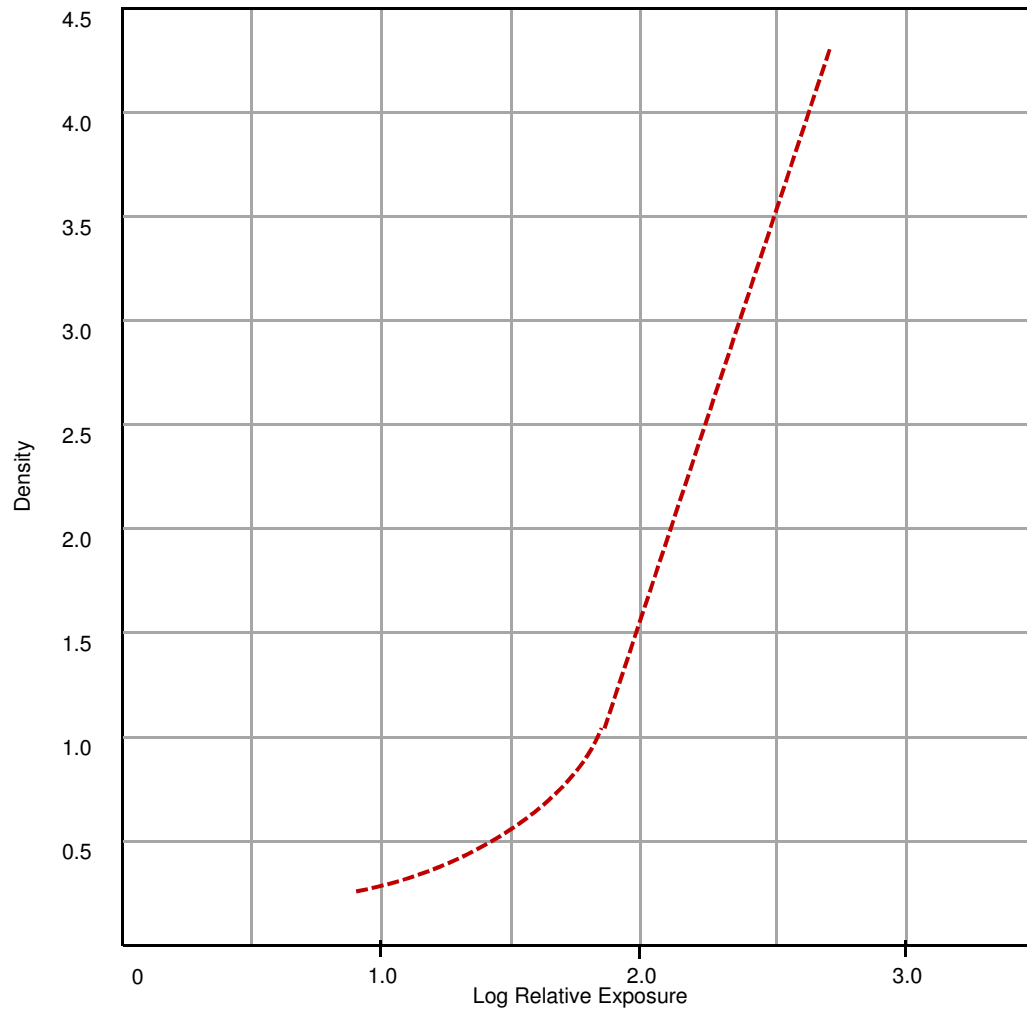
Certifications: ISO 9001:2015, ISO 14001:2015, ISO 13485:2003, CE, OHSAS 18001:2007 and WHO-GMP

## I X 80 Characteristic Curve

Performance characteristics

Auto-process:

Exposure: 200Kv / Pb screen. Process: VMS Auto-process chemistry



Performance characteristics

Manual process:  
Exposure: 200Kv / Pb screen. Process: VMS Manual process chemistry

