

FUJIFILM



Industrial
X-RAY FILM

IX



FUJIFILM INDUSTRIAL X-RAY FILM

for consistent high quality non-destructive Testing

Fujifilm industrial X-ray film feature revolutionary new film technology. The combination of the latest in emulsion making science and computerized manufacturing processes assure consistent batch to batch performance, optimum image quality and compatibility with all NDT chemistries and current brand tank/automatic processing conditions. The Fujifilm family of films incorporate unique speed, and grain technologies thus permitting their use over a wide range of applications with consistent high quality regardless of the material examined and the source of radiation employed.

Film	Applications	Features
Type/ID Notch		
IX 20	<ul style="list-style-type: none"> · Micro-electronic parts · Neutron radiography · Critical investment castings · Ultra-fine ceramic parts · Graphite composite parts 	<p>A single emulsion, ultra-fine grain, medium high contrast film suitable for critical imaging quality applications. Its single emulsion feature minimizes parallax and permits extremely sharp magnified viewing. IX20 is generally used in direct exposure techniques or with lead screens.</p>
IX 25	<ul style="list-style-type: none"> · Micro-electronic parts · Fine ceramic parts · Castings: low to medium atomic number metals · Applications requiring the highest of contrast · High-output supervoltage X-ray exposure 	<p>Fujifilm's finest grain, high contrast ASTM special film having maximum sharpness and discrimination characteristics. It is suitable for new materials, such as carbon fiber reinforced plastics, ceramic products, and micro electronic parts. IX25 is generally used in direct exposure techniques or with lead screens. IX25 is recommended for automated processing only.</p>
IX 50	<ul style="list-style-type: none"> · Electronic parts · Graphite epoxy composites · High curie isotope exposures · Castings: low to medium atomic number metals 	<p>An ultra-fine grain, high contrast ASTM Class I film having excellent sharpness and high discrimination characteristics. It is suitable for use with any low atomic number material where fine image detail is imperative. Its ultra-fine grain makes it useful in high energy, low subject contrast applications where high curie isotopes or high output X-ray machines permit its use. Wide exposure latitude has been demonstrated in high subject contrast applications. IX50 is generally used in direct exposure techniques or with lead screens.</p>
IX 80	<ul style="list-style-type: none"> · Welds: low to medium atomic number metals · Castings: low to medium atomic number metals · Aircraft construction and maintenance · Graphite epoxy composites 	<p>An extremely fine grain, high contrast ASTM Class I film suitable for detection of minute defects. It is applicable to the inspection of low atomic number materials with low kilovoltage X-ray sources as well as inspection of higher atomic number materials with high kilovoltage X-ray or gamma ray sources. Wide exposure latitude has been demonstrated in high subject contrast applications. IX80 is generally used in direct exposure techniques or with lead screens.</p>
IX 100	<ul style="list-style-type: none"> · Welds: medium to higher atomic number metals · Castings: medium to higher atomic number metals · Aircraft construction and maintenance · Ordnance inspection 	<p>A very fine grain, high contrast ASTM Class II film suitable for the inspection of light metals with low activity radiation sources and for inspection of thick, higher density specimens with high kilovoltage X-ray or gamma ray sources. Wide exposure latitude has been demonstrated in high contrast subject applications. Although IX100 is generally used in direct exposure techniques or with lead screens, it is suitable for use with fluorescent or fluorometallic screens.</p>
IX 150	<ul style="list-style-type: none"> · Heavy, multi-thick steel parts · Steel reinforced concrete · Low curie isotope and low-output X-ray exposures 	<p>A high speed, fine grain, high contrast ASTM Class III film suitable for inspection of a large variety of specimens with low-to-high kilovoltage X-ray and gamma ray sources. It is particularly useful when gamma ray sources of high activity are unavailable or when very thick specimens are to be inspected. It is also useful in X-ray diffraction work. IX150 is used in direct exposure techniques or with lead screens.</p>
IX 29	<ul style="list-style-type: none"> · Castings and other multi-thickness subjects 	<p>An ultra-fine grain, medium-high contrast ASTM Class W-A film suitable to inspect wide range thickness subjects such as precision cast parts with X-ray or gamma ray sources. IX29 can be used in direct exposure techniques or with lead screens.</p>
IX 59	<ul style="list-style-type: none"> · Castings and other multi-thickness subjects 	<p>An extremely fine grain, medium contrast ASTM Class W-B film suitable to inspect multi-thick, low-atomic number metal, and steel cast parts. IX59 can be used in direct exposure techniques or with lead screens.</p>

Advantages of Fujifilm IX Film

(1) High Image Quality

Fujifilm IX films exhibit high defect recognition due to their fine granularity.

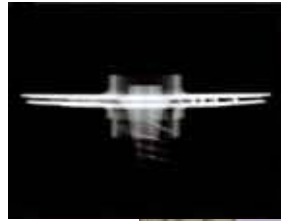
(2) Constant Performance

For example, Fujifilm batch to batch consistency is the best in the industry.

For this reason, exposure conditions don't vary from one part to the next, thereby increasing productivity.

(3) Less density uneveness.

Fujifilm emulsion coating is so even and uniform that it avoids most of the density uneveness that sometimes occurs in automatic processing with other products.



Film	Relative speed*				Film system class*			Sheet : Non interleaved
	100KV Direct	200KV with lead	Ir-192 with lead	Co-60 with lead	ASTM E1815-96	ISO 11699-1	JIS K7627	Available packaging type
IX 20	10	9	8	5	—	—	—	Sheet : Non interleaved
IX 25	20	17	15	10	SPECIAL	C1	T1	Sheet : Non interleaved : Envelopak : Envelopak+Pb
IX 50	35	30	30	30	I	C3	T2	Sheet : Interleaved : Non interleaved : Envelopak, Envelopak+Pb Roll : Envelopak+Pb
IX 80	55	55	55	55	I	C4	T2	Sheet : Interleaved : Non interleaved : Envelopak, Envelopak+Pb Roll : Non interleaved : Envelopak, Envelopak+Pb
IX 100	100	100	100	100	II	C5	T3	Sheet : Interleaved : Non interleaved : Envelopak, Envelopak+Pb Roll : Non interleaved : Envelopak+Pb
IX 150	200	200	170	170	III	C6	T4	Sheet : Interleaved : Non interleaved
IX 29	22	22	22	22	W-A	—	W-A	Sheet : Non interleaved
IX 59	45	45	45	45	W-B	—	W-B	Sheet : Non interleaved : Envelopak Roll : Envelopak

*Speed as compared to that of type IX100 as a standard 100

※Classification based on developed with Fujifilm's recommended processing conditions.

Fujifilm 5-minute processable IX films are offered in eight types with a variety of packaging to meet any NDT need.

Sheet and Sheet-Pack Film



Four types of sheet film package including interleaved, Non-interleaved, Envelopak, and Envelopak + Pb are available in most conventional sizes. Blue tint and sharper images make these products ideal for the most critical radiographic applications.



Envelopak Sheet Film

Envelopak is a complete daylight package containing pre-cut sheet film. Triple-layered packaging is water-proof and oil resistant, permitting ease of use under most exposure/environmental conditions. Envelopak is available with or without lead screens.

Roll and Roll-Pack Film



Roll film is pre-cut in 70mm, 10", 14" and 17" standard widths. Blue tint and sharper images make these films ideal for the most critical radiographic applications. Supplied in a convenient dispenser box, Roll-Pack is available with or without lead screens (Envelopak Roll and Envelopak + Pb Roll). The sealed and flushed edge is cut at any desired length for subjects requiring special film sizes. Darkroom loading Roll Film is also available.