

INDUX R7

INDUSTRIAL X-RAY FILM

General information

INDUX R7 is an industrial radiographic film intended for non-destructive material testing using X- or gamma radiation.

INDUX R7 is a high-speed, high-contrast, fine-grain film suitable for radiography with or without lead screens.

INDUX R7 corresponds with the class C5 classification according to the EN 584-1 standard or according ASTM E 1815 standard with class II.

Applications

INDUX R7 should be used at low voltages for the radiography of medium-walled light metal or thin-walled steel parts/products. At higher voltages the film is suitable for the testing of thick-walled light metal or medium-walled steel parts/products. With high-energy gamma rays the film is suitable for the radiography of thicker-to-thickest dense metal parts/products.

Packaging forms

daylight packaging (FOMAPAK) – one-sheet vacuum-sealed packaging with lead screens of 0,025 mm thickness
 Sizes: 6x24, 6x30, 6x48, 10x12, 10x24, 10x30 and 10x48 cm in boxes of 50 sheets.

The vacuum-sealed packaging FOMAPAK ensures optimum contact of film surface with lead screens, simple handling, and is light-tight, air-tight and waterproof.

darkroom packaging (KB)

Sizes: 6x24, 6x48, 10x12, 10x24, 10x48 and 10x72 cm in boxes of 100 sheets

Sizes: 18x24, 24x30, 30x40 and 35x43 cm interleaved (IF, FW) in boxes of 50 sheets.

daylight roll film packaging (FOMADUX ROLLFILM)

with lead screens in a light-tight paper envelope sized 70 mm x 90 m or 100 mm x 90 m, supplied as a roll in a cardboard dispenser box

Other sizes are subject to be agreed with the manufacturer.

Film base

INDUX R7 is manufactured on a dimensionally stable bluish polyester base of 0,175 mm thickness.

Screens

Screens-packed kinds (FOMAPAK) content lead screens 0,025 mm thick, backed by a paper of 70 - 90 g/sq. m of basis weight, on both film sides.

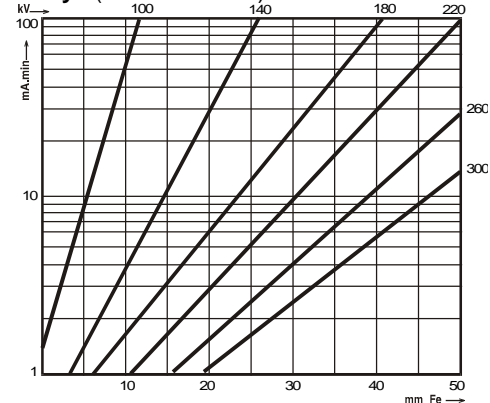
Darkroom illumination

INDUX R7 should be handled and processed under indirect safelight illumination with a wavelength over 520 nm. Recommended are safelight filters Agfa R1 filter (dark red) or Agfa G7 filter (olive-green) in a safelight lamp with a 25 watt bulb and placed in a distance of minimum 75 cm between the reflective surface and the film, or LED light sources with a wavelength of 660 nm or 590 nm.

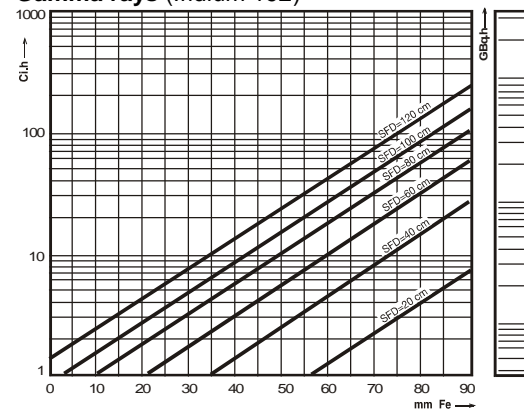
Exposure charts for steel

For optical density $D=2$, front and back lead screens 0,025 mm thick, FOMADUX LP-T Developer 5 minutes at 20 °C.

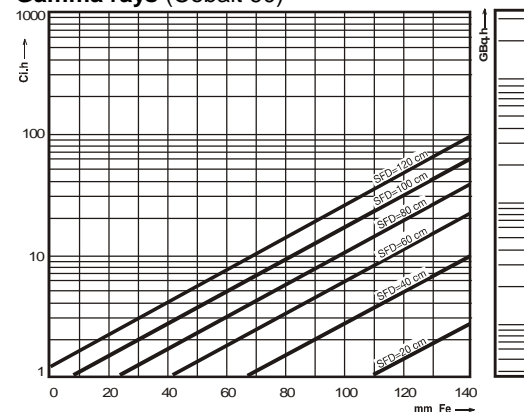
X-rays (FDD = 100 cm)



Gamma rays (Iridium 192)



Gamma rays (Cobalt 60)



Processing

INDUX R7 is intended both for the manual and automatic processing.

Recommended chemicals for the manual processing:

FOMADUX LP-T Developer and Developer-Replenisher
(5 minutes of developing time at 20 °C, 1 + 3)

FOMAFIX Rapid Fixer

Recommended chemicals for the automatic processing:

FOMADUX LP-D Developer-Replenisher
(2 minutes of developer immersion time at 28 °C)

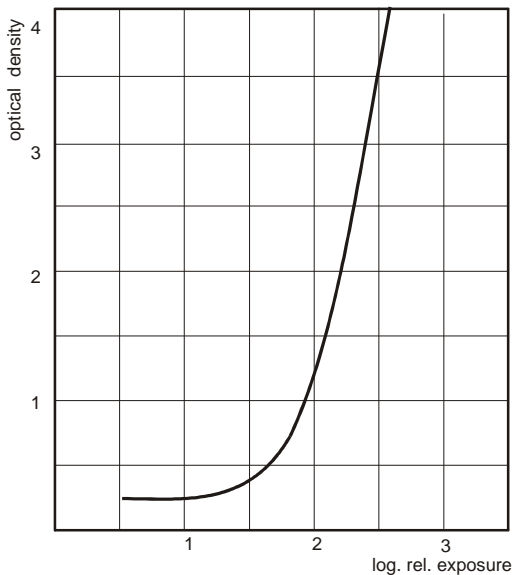
FOMA LP-DS Developer Starter

FOMAFIX + FOMAFIX H Hardening Rapid Fixer.

INDUX R7 can also be processed in corresponding processing chemicals of other manufacturers, for example developer Agfa G135 for automatic processing 2 minutes of developer immersion time at 28 °C or G128 for manual processing 5 minutes of developing time at 20 °C.

Sensitometric characteristic

Source ISO 2 (220 kV/10 mA/8 mm Cu), automatic processing, FOMADUX LP-D Developer, 8 minutes of processing time at 28 °C (corresponds with 2 minutes developer immersion time)



Archiving of processed films

The manufacturer guarantees the archival permanence of minimum 50 years when complying with conditions following:

- films must be perfectly fixed and washed
- films must be stored at a relative humidity of 30 to 60% out of reach of harmful gases.

Storage of unexposed films

Unexposed films should be stored in the vertical position in the original packaging in a dry and cool place at a temperature of 5 to 21 °C and at a relative humidity of 40 to 60 %, out of reach of harmful gases and any ionizing radiation.

Exposed films should be processed as soon as possible.

The product has been produced and marketed in conformity with a quality system according to the international standard EN ISO 9001:2000.