

Life Expectancy of Processed Industrial Radiographs



The life expectancy of processed industrial radiographs is highly dependent on their processing and storage conditions. Kodak cannot control customers' processing and storage conditions and therefore does not guarantee any particular life expectancy. Kodak's "Limitation of Liability" is printed on every product label, and covers defective manufacturing and packaging.

While Kodak cannot promise a specific life expectancy for radiographs made using its INDUSTREX Film Products, we can provide assistance to customers who wish to assess the long term keeping capability of their radiographs. In Kodak testing of INDUSTREX Film Products, films were processed in a KODAK INDUSTREX Film Processor Model 43IC, using KODAK INDUSTREX Single Part Developer Replenisher and KODAK INDUSTREX LO Fixer and Replenisher. The process cycle was the standard 8-minute cycle with a developer immersion time of 100 seconds at a temperature of 26° C (79° F), in accordance with the Kodak published processing recommendation (TI2621). Under these conditions, all films (KODAK INDUSTREX HS800, AA400, T200, MX125, M100 and DR50) showed less than 0.5 ug/cm² of retained Thiosulfate, per ISO Standard 18917. Each sample was analyzed and results were calculated using a carefully prepared calibration line. These data translate to a life expectancy of 500 years (LE500), per ISO Standard 18901, when stored properly. The film storage environment should be limited to the range of 4.4° C (40° F) to 24° C (75° F) and 30% to 60% RH, per ASTM Standard E 1254.

Kodak encourages customers to assess the life expectancy of radiographs made using their own INDUSTREX Film Products, using the above referenced standards. We will be happy to assist if you should have any questions.

References:

1. Kodak Publication TI2621: Processing KODAK INDUSTREX Films Using KODAK INDUSTREX Single Part Developer Replenisher and KODAK INDUSTREX LO Fixer and Replenisher
2. ISO 18917: Determination of residual thiosulfate and other related chemicals in processed photographic materials—Methods using iodine-amylose, methylene blue, and silver sulfide
3. ISO 18901: Imaging Materials—Processed silver-gelatin type black-and-white films—Specifications for stability
4. ASTM E 1254: "Standard Guide for Storage of Radiographs and Unexposed Industrial Radiographic Films", ASTM International

Life Expectancy of Processed Industrial Radiographs Produced on KODAK INDUSTREX Film Products

NOTICE: While the sensitometric data in this publication are typical of production coatings, they do not represent standards which must be met by Carestream Health, Inc. Varying storage, exposure, and processing conditions will affect results. The company reserves the right to change and improve product characteristics at any time.

