

# FOMADUX NDT ROLLFILM

## TECHNICAL RADIOGRAPHIC FILMS

### Characteristics of the product

FOMADUX NDT ROLLFILM is a special confectioning form of technical radiographic film with designed for non-destructive material testing with use of X- or gamma radiation. The special form of the packaging ensures the film's resistance to light, humidity and greasy impurities.

The film is placed between two lead screens (thickness 0,025 mm) of the same dimensions; the screens are in perfect contact with the film; the film is packed in a light- and moisture-proof package – using the "edge to edge" system.

### Usage

This kind of film is ideal solution for testing of long welds, e.g. welds of pipelines, pressure vessels or large parts in the aerospace industry, as the length can be chosen so that all the radiogram can be exposed to a single piece of film.

Packed film is wound onto a cardboard core and inserted in a transport box from which required length can be simply wound out. There is a print in the package axis on the side with folded edges; the print helps determine the film center and the film length. Contact of the film with a wet or impure object has no effect on the quality of the final radiograph.

How to remove the film from the package before processing: In a dark room hold the non-printed part of the package together with lead screen and the film with one hand and strip off the printed part of the package and the second lead screen with the other hand. Thus the film will be easily and quickly removed from the package.

### Advantages of the rollfilm

The full length of the weld can be radiographed onto a single piece of film, i.e. we avoid using several film sheets for one weld. Required film length is determined according to the weld length. Further advantages:

- Using without cassettes
- Lightproof package is resistant to humidity and greasy impurities
- By single – usage films we avoid faults caused by their repeated usage
- Perfect contact between the film, lead screens and checked object ensures optimal quality of the image
- The "edge to edge" packing system allows optimal use of the film surface where there is not sufficient space for placing the film

### Processing

FOMADUX is intended both for the manual and automatic processing.

### Processing technology

Long films must be processed carefully. Generally it is possible to split the film after marking it and then to process it in the ordinary way or to fully exploit the advantages of the ROLLFILM package and process it in full length.

- a) When machine processing it is necessary to ensure precise leading (by a suitable jig) of the film into the axis of the developing machine.
- b) In manual processing of ROLLFILM, prior to processing it is necessary to wind the film into a special wire coil that facilitates contact of the film with baths. It is also possible to split the film and process it in parts in ordinary frames used for processing in a darkroom.

### Recommended chemicals for the manual processing:

FOMADUX LP-T Developer

(5 minutes of developing time at 20 °C, dilution 1 + 3)

FOMADUX FIX Rapid Fixer

FOTONAL Wetting Agent

### Recommended chemicals for the automatic processing:

FOMADUX LP-D Developer-Replenisher

(2 minutes of developing time at 28 °C)

FOMA LP-DS Developer Starter

FOMADUX FIX-Set Hardening Fixer – part A (fixer) + part B (hardener)

FOMADUX NDT ROLLFILM can also be processed in FOMA ECO chemie (FOMADUX LP-ECO, FOMADUX FIX-ECO) intended for both automatic and manual processing or in corresponding processing chemicals of other manufacturers.

### Darkroom illumination

The film is processed at yellow-orange safety illumination with wavelength of 590 nm. Length of exposure and a distance of the processed material from the illumination source should be tested.

### 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 original packaging in a cool, dry place (temperature ranging from 10 to 25 °C, relative humidity from 40 to 60 %), out of reach of harmful vapours, gases and ionizing radiations. Exposed films should be processed as soon as possible.

### Packaging

#### Rollfilm with Pb

- lightproof, humidity and greasy resistant
- sandwiched between two lead screens (thickness 0,025 mm)
- width 60, 70 or 100 mm in length up to 90 m.

#### Rollfilm BLR

- bare rollfilm
- intended for using in cassettes
- width 60, 70 mm or 100 mm in length up to 150 m.

*By using and processing of the product Fomadux arise wastes, which is necessary to environmentally liquidate according to valid legislation.*

### Wastes:

- packaging foil : PET / AL / PE or PAPER / PE / PAPER
- Pb foil
- waste developers
- waste fixers

Information according to Article 33 of REACH: The product FOMADUX contains lead. This substance is included in the list of substances (for possible inclusion in Annex XIV). After handling, hygiene rules must be followed. More information at [www.foma.cz](http://www.foma.cz)

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