

## PRODUCT INFORMATION

### Optotrast *B&W Negative Developer for machine processing*

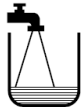


Optotrast is a replenishable fine-grain developer, designed for the processing of B&W negative films in dip & dunk and continuous flow processing machines.

For mixing of replenisher, the liquid 1-part concentrate is to be diluted with water, ensuring an easy handling and a safe application.

Optotrast supplies full exploitation of the fabricatory film speed and features an excellent tonal reproduction. A balanced wide development latitude, linked with a high process stability and constant sensitometry make Optotrast a preferred product for commercial laboratories.

Optotrast Replenisher	2 x 5 L conc. for 2 x 20 L	REF 13800
Optotrast Starter	1 L conc. for 50 L working solution	REF 13810

#### MIXING OF REPLENISHER





Water	Optotrast concentrate	Replenisher
		
750 ml 7,5 L 15 L	250 ml 2,5 L 5 L	1 L 10 L 20 L

#### MIXING OF WORKING SOLUTION





Mixing of working solution is required, when the working tank of the machine is to be refilled, e.g. when installing a machine or after cleaning the tank during maintenance work.

The mixing of Optotrast working solution can be carried out either **directly** from Optotrast concentrate **or indirectly** from previously prepared Optotrast replenisher.

#### MIXING OF WORKING SOLUTION: INDIRECT FROM REPLENISHER

Water	Starter REF 13810	Optotrast Replenisher	Working solution
			
260 ml	20 ml	720 ml	1 L
	or		

#### MIXING OF WORKING SOLUTION: DIRECT FROM CONCENTRATE

Water	Starter REF 13810	Optotrast concentrate	Working solution
			
800 ml	20 ml	180 ml	1 L

## MIXING OF WORKING SOLUTION

The preparation of Optotrast Developer working solution requires exact knowledge of the working tank volume. Specified quantities for water, Optotrast Starter and Optotrast **concentrate** or for water, Optotrast Starter and Optotrast **replenisher**, given for 1 litre working solution, must be multiplied with the capacity of the respective developer working tank.

**Mixing directly from Optotrast concentrate:** Pour the calculated quantities of water and Optotrast Starter into the empty developer working tank and then top up with Optotrast concentrate. The mixing is carried out by the circulation pump of the working tank.

or

**Mixing indirectly from Optotrast replenisher:** Initially prepare Optotrast replenisher in a mixing vessel or in other suitable container. Start filling the calculated amounts of water and Optotrast Starter into the empty working tank and then top up with the previously prepared Optotrast replenisher. The mixing is carried out by the circulation pump of the working tank. Add excessive replenisher to the replenisher tank.

## PROCESSING PARAMETERS

**REPLENISHMENT RATE:** 300-325 ml/m<sup>2</sup> resp. 16-18 ml/135-36

**TIME:** 4-6 minutes      **TEMPERATURE:** 22-24°C

The data given are guide values and starting points for determining individual processing parameters - longer times and higher temperatures are possible. In order to maintain the fabricatory fine grain of the film emulsions, a temperature of more than 26°C should not be exceeded, unless intended for technical reason or special application.

In contrary to film development in small tanks and spiral tanks - by using special developers and individual times for different film types - commercial processing with machines is often performed differently by processing any films with one and the same time, exploiting the development latitude of the developer.

To achieve better a differentiation and to optimise development, it is nevertheless advisable to categorise films and divide them into 2 or 3 groups, each with the same development time.

## OCCUPATIONAL SAFETY

Handling of photographic chemicals is safe, if used properly and protective measures are followed. Hazard and precautionary information can be found on the label (H and P phrases, hazard symbol) and in the safety data sheet. Personal protective equipment should include safety goggles or face shield, protective gloves and a lab coat or apron.

## STORAGE

Optotrast concentrate should be stored dry, frost-proof and out of the reach of children. The maximum temperature range is between 5°C and 25°C. Storage temperatures between 10°C and 20°C are ideal.

## SHELF LIFE

Optotrast Developer concentrate in unopened, originally sealed containers has a shelf life of approx. 2 years - Optotrast Starter has a shelf life of 4-5 years.

## DISPOSAL

Photographic chemicals - concentrates or used baths - must not be discharged into the public sewer system. These chemicals must be discarded by commercial waste treatment companies, who properly dispose of in accordance with legal regulations. Further information can be found in the safety data sheet.