

PRODUCT INFORMATION

CD-ADDITIV PLUS

BX-ADDITIV

Oxidation protectors for Colour Developer and Bleach Fix

CD-Additiv Plus	2 x 0,5 L conc.	for 250 - 500 L	REF 16222
BX-Additiv	1 L conc.	for 50 - 200 L	REF 16450

CD-Additiv Plus and BX-Additiv are oxidation protectors for photographic chemicals. CD-Additiv Plus extends the shelf life of C-41 and RA-4 Colour Developers, while BX-Additiv prevents RA-4 Bleach Fixes from oxidation. Both can optionally be added to replenishers and working solutions.

Every time when a photographic processing machine is started up, the developing process itself, as well as bath tempering puts strain on the chemical solutions. However, for processors which are operating at full capacity, this is insignificant as on one hand the standing time of the mixed replenisher is short, while on other hand the state of the working solution is maintained constant by a fast exchange of working solution against replenisher.

However, issues may emerge if machine utilisation is excessively low or during operational longer time-out, e.g. during company holidays. In this instance, the built-in oxidation protectors inherent with the Colour Developer and the Bleach Fix undergoes a gradual but steady degradation, which finally can result in a decomposition of the processing solutions.

CD-ADDITIV PLUS

CD-Additiv Plus is a oxidation protector, optionally to be added to all Colour Developers: applicable for RA-4 as well as for C-41, for all types and for all makes. If the given antioxidant of a Colour Developer slowly but continuously gets reduced, due to low utilisation or during longer production breaks, tarry deposits can increasingly be formed on rack rollers and tank walls.

Accelerated oxidation of the Colour Developer can be counteracted by adding CD-Additive Plus. Regular addition is crucial for the effect; sporadic applications are not effective.

Should the utilisation of a developing machine decrease, it would be advisable to check initially, whether a different type of developer with a higher replenishment rate could be more appropriate for the stability of the chemicals related to a corresponding faster exchange of working solution for replenisher.

For instance: Switching from CD-LR 80 with 80 ml/m² to CD-R 160 with 160 ml/m² results in a halving of the time required for a tank exchange of working solution for replenisher.

At low utilisation, the developing machine should only be switched on and heated on days, when production is actually running, as unnecessary warming and standby mode would have negative impact on the processing chemicals.

DOSAGE AND APPLICATION

RA-4 Colour Developer Replenisher: Add 4 ml per litre each time the replenisher was mixed.

RA-4 Colour Developer Working Solution: Add 2 ml per litre once a week.

C-41 Colour Developer Replenisher: Add 4 ml per litre, each time replenisher was mixed.

C-41 Colour Developer Working Solution: Add 2 ml per litre once a week.

BX-ADDITIV

Bleach Fixes are indeed robust processing chemicals, but this only applies, as long as the developing machine is well utilised. If this requirement is not met, the oxidation protector, contained in Bleach Fixes is gradually declining. As long as the oxidation protector is present, the fixing agent ammonium thiosulphate is inhibited from reacting with atmospheric oxygen, correspondingly being protected from oxidation and decomposition.

In addition to insufficient utilisation, an incorrectly set BX replenishment rate or a faulty replenisher pump can also cause the fixing component finally to get decomposed. Then elemental sulphur is released, which can react with silver, contained in used working solutions to form brownish-black silver sulphide, resulting in stubborn dirt and deposits, that are difficult to remove.

It is not possible to add a protector such as BX-Additiv retrospectively – if once yellowish-white sulphur particles should have formed, being visible on the surface of the bath, it is already too late. The Bleach Fix should then be mixed fresh immediately to prevent massive dirt and deposits on tank walls as on the rack.

A consistent addition of BX-Additiv to the Bleach Fix working solution and to the Bleach Fix replenisher maintains the protection against oxidation and reliably prevents decomposition of the fixing component. The working solution remains stable, even with the poorest utilisation.

DOSAGE AND APPLICATION

RA-4 Bleach Fix Replenisher: Add 20 ml per litre each time replenisher was mixed

RA-4 Bleach Fix Working solution: Add 5-10 ml per litre once a week

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

CD-Additiv Plus and BX-Additiv 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

CD-Additiv Plus and BX-Additiv concentrates in unopened, originally sealed bottles and canisters have a shelf life of approx. 2 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 treat and dispose of in accordance with legal regulations. Further information can be found in the safety data sheet.