

Chemicals for KODAK PROFESSIONAL Black-and-White Films

KODAK PROFESSIONAL Chemicals	KODAK PROFESSIONAL Film							Typical Dilution (stock or concentrate: water)	Solution Temperature/ Time Range	Packaged Powder	Packaged Liquid Concentrate	Replenisher Available	For Use In	Keeping Properties Without Use		Useful Capacity	
	T-MAX 100 / 100TMX	T-MAX 400 / 400TMY	T-MAX P3200 / P3200TMZ	PLUS-X 125 / 125PX	TRI-X 400 / 400TX	TRI-X 320 / 320TXP	EASTMAN Fine Grain Positive 5302							Stock or Concentrate Solution in Closed Container (Full)	Working Solution in Tray/Tank	8 x 10 Sheets per Gal/L in a Tray	Tank
DEVELOPER																	
Developer D-76	✓	✓	✓	✓	✓	✓	✓	full strength 1:1	65 to 75°F (18 to 24°C) See instructions packaged with product	✓		✓	small or large tank, tray, rotary-tube, rack-and-tank	6 months NA	24 hours/1 month 24 hours/NR	16/4	16/4*
T-MAX Developer	✓	✓	✓	✓	✓	✓		1:4			✓		small or large tank, rotary-tube	6 months	NR/1 month	8/2	8/2
T-MAX RS Developer and Replenisher	✓	✓	✓	✓	✓	✓		stock (working strength)			✓	✓	small or large tank, tray, rotary-tube, rack-and-tank	Indefinite (conc) 6 months (working tank sol)	24 hours/1 month	NR	16/4*
XTOL Developer	✓	✓	✓	✓	✓	✓		full strength 1:1		✓		✓	small or large tank, tray, rotary-tube	6 months	24 hours/2 months	19/5	19/5
HC-110 Developer Dilution A Dilution B	✓	✓	✓	✓	✓	✓		1:3 (A) 1:7 (B) from stock solution			✓	✓	small or large tank, tray, rotary-tube, rack-and-tank	6 months (stock)	24 hrs/1 month (A) 12 hrs/2weeks (B)	20/5 (A) 10/2.5 (B)	40/10 (A)* 20/5 (B)*
Developer D-19								full strength		✓			large tank, tray	6 months	24 hours/1 month	45/12	60/16*
DURAFLO RT Developer Replenisher	✓	✓	✓	✓	✓	✓		See instructions packaged with Part B	80 ±0.5°F (26.5 ±0.3C)		✓	✓	roller transport	6 weeks (replenisher tank with cover)	6 weeks for replenisher in tank	NA	NA
STOP BATH																	
Indicator Stop Bath	✓	✓	✓	✓	✓	✓	✓	1:63	65 to 70°F (18 to 21C) 30 seconds		✓		small or large tank, tray, rotary-tube	Indefinite	3 days/1 month	discard when color changes to purplish/blue	
FIXERS																	
Rapid Fixer	✓	✓	✓	✓	✓	✓	✓	1:3 plus Part B (hardener)	65 to 70°F (18 to 21°C) 2 to 10 minutes depending on film and fixer combination		✓		tanks, tray, machine	Indefinite	1 week/1 month	120/32	120/32
Fixer	✓	✓	✓	✓	✓	✓	✓	working strength see package		✓			small or large tank, tray, rotary-tube	2 months	1 week/1 month	100/26	100/26
KODAFIX Solution	✓	✓	✓	✓	✓	✓	✓	1:3			✓		small or large tank, tray, rotary-tube	Indefinite	1 week/1 month	120/32	120/32
WASHING AID																	
Hypo Clearing Agent	✓	✓	✓	✓	✓	✓	✓	1:4 from stock solution	65 to 70°F (18 to 21C) 1 to 2 minutes	✓			small or large tank, tray, rotary-tube, rack-and-tank	3 months	24 hours/1 month	50-60 (12-15) without pre-rinse; 150-200 (35-50) with pre-rinse	
DRYING AID																	
PHOTO-FLO Solution 200	✓	✓	✓	✓	✓	✓	✓	1:200	65 to 70°F (18 to 21C) 30 seconds		✓		small or large tank, tray, rack-and-tank	Indefinite	Indefinite†	—	—

* Useful capacity can be increased by replenishment.

† Keeping properties will vary depending on conditions of use.

NA = Not applicable

NR = Not recommended

KODAK PROFESSIONAL Chemical	Description
DEVELOPERS	
Developer D-76†	<ul style="list-style-type: none"> For general use Yields full emulsion speed and good shadow detail with normal contrast Moderately fine grain, excellent development latitude Replenish with KODAK PROFESSIONAL Replenisher D-76R For normal or push processing
T-MAX Developer	<ul style="list-style-type: none"> Designed for non-replenished systems Produces enhanced shadow detail For use with roll films only For normal or push processing
T-MAX RS Developer and Replenisher*	<ul style="list-style-type: none"> Recommended for replenished systems Produces enhanced shadow detail For normal or push processing of roll and sheet films
XTOL Developer	<ul style="list-style-type: none"> Suitable for most professional black-and-white films Ascorbic acid developer Very high image quality at full emulsion speed Convenient, room-temperature mixing Stable performance through a range of temperatures, dilutions, and agitation methods Fine grain and high sharpness Provides more emulsion speed (shadow detail) than most developers for normal and push processing

KODAK PROFESSIONAL Chemical	Description
HC-110 Developer	<ul style="list-style-type: none"> Extremely versatile Can be used in both replenished and nonreplenished systems Replenish with KODAK PROFESSIONAL HC-110 Developer Replenisher For normal or push processing
Developer D-19	<ul style="list-style-type: none"> High capacity, clean working, fast acting Provides higher than normal contrast and speed, higher than average graininess
DURAFLO RT Developer Replenisher	<ul style="list-style-type: none"> Designed for roller-transport processors Replenished system Produces fine grain Long storage life Good sheet-film transport
STOP BATHS	
Indicator Stop Bath	<ul style="list-style-type: none"> Non-hardening, general-purpose stop bath for use with films and papers Contains an indicator to signal exhaustion Dilute 1 part concentrate with 63 parts water
FIXERS	
Rapid Fixer	<ul style="list-style-type: none"> A fast-acting hardening fixer For machine, tray, or tank processing Consists of two liquid concentrates: Solution A (the fixer concentrate) and Solution B (the hardener concentrate) For use with film and paper
Fixer	<ul style="list-style-type: none"> A general-purpose hardening fixer for films and papers Mixes to working strength

KODAK PROFESSIONAL Chemical	Description
KODAFIX Solution	<ul style="list-style-type: none"> General-purpose, single-solution hardening fixer for films and papers Long life, high capacity Dilute 1 part concentrate to 3 parts water for use with film; 1 part concentrate to 7 parts water for use with paper
WASHING AID	
Hypo Clearing Agent	<ul style="list-style-type: none"> Promotes removal of fixer from films and fiber-base papers to shorten wash times and make washing at lower wash-water temperatures practical Dilute 1 part stock solution to 4 parts water
DRYING AID	
PHOTO-FLO 200 Solution	<ul style="list-style-type: none"> Decreases water-surface tension Minimizes water marks and streaks on film Promotes faster, more uniform drying
DIRECT POSITIVE OUTFIT	
T-MAX 100 Direct Positive Film Developing Outfit	<ul style="list-style-type: none"> Produces positive black-and-white slides from KODAK PROFESSIONAL T-MAX 100 Film For use in small or large tanks and rotarytube processors

* Use the mixed solution as a working tank solution or a replenisher.

† For greater sharpness, you can use this developer diluted 1:1. Using the diluted developer requires longer development times, which may result in a slight increase in graininess.

Note: To obtain consistent results from KODAK powdered chemicals, mix the full volume marked on the package. Kodak Alaris supplies powdered photographic chemicals in a variety of sizes that make it easy to choose the volume you need. Therefore, we do not recommend mixing smaller-than-package-size amounts of powdered KODAK Processing Chemicals.

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TM/MC/MR: D-76, Duraflo, HC-110, Photo-Flo, T-Max, Xtol

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