



**KODAK PROFESSIONAL HC-110 Developer
and HC-110 Developer Replenisher**

KODAK PROFESSIONAL Developer	Characteristics	Use With These KODAK PROFESSIONAL Films
HC-110 Developer 	<ul style="list-style-type: none"> Extremely versatile Can be used in both replenished and non-replenished systems Replenish with KODAK PROFESSIONAL HC-110 Developer Replenisher For normal or push processing Liquid 	T-MAX 100 / 100TMX T-MAX 400 / 400TMY T-MAX P3200 / P3200TMZ PLUS-X 125 / 125PX Technical Pan / TP TRI-X 400 / 400TX TRI-X 320 / 320TXP
HC-110 Developer Replenisher 	<ul style="list-style-type: none"> Increases capacity of KODAK PROFESSIONAL HC-110 Developer tank solutions Liquid 	Contrast Process Ortho High-Speed Infrared

Unusual Uses for HC-110

Ansel Adams used HC-110 dilution G (syrup 1:119) as a compensating developer to increase shadow detail without blocking highlights. His developing time (presumably for Tri-X Pan Professional) was about 18 minutes at 68°F (20°C), with continuous agitation for the first minute and subsequent agitation for 15 seconds every 3 minutes. For preferential development of the shadows, it is important not to agitate too much.

For 35-mm film, this would require a minimum of 6 mL of syrup with water to make 720 mL, and one roll should be developed in a 2-roll tank with all 720 mL of liquid in it.

Michael Gudzinowicz (on rec.photo.darkroom) recommends dilution H (syrup 1:63) for higher acutance. Development times are to be found by experiment, but are likely to be 50% to 100% longer than for HC-110 (B). I find that doubling the time for Dilution B is a good starting point. It has been suggested that HC-110 might benefit from dilution with a sodium sulfite solution (perhaps 5%) as with Edwal FG7. Bear in mind however that HC-110 apparently already has considerable solvent action.

Joe Giacalone reports that astrophotographer Gerard Therin does planetary photography on gas-hypersensitized Kodak Technical Pan which he develops in two baths, first HC-110 (B) for 5 to 6 minutes and then D-19 for 2 minutes (presumably at 20°C = 68°F). My own thought is that a single bath in HC-110 (A) for 8 to 10 minutes will probably give very similar results.

You can develop photographic paper in HC-110 (A). Action is slightly slower than other print developers, and the capacity is less (about 10 or 15 8x10 sheets per 600 mL).

Scott Daniel Ullman (on rec.photo.darkroom) recommends adding HC-110 to paper developer in order to increase its working life and increase highlight detail (i.e., lower the threshold of developable exposure). He adds about 60 mL of HC-110 syrup to five liters of prepared Lauder Chemical Concentrated Paper Developer. Presumably, the organic accelerators in HC-110 are responsible for the beneficial effects.

Michael G. Slack (in Darkroom Photography, July/August 1979, p. 13) reports pushing Kodak Tri-X Pan to EI 4000 (with extreme contrast increase) by developing for 5 minutes at 75°F in HC-110 replenisher diluted 1:15 (like Dilution A, but starting with replenisher rather than syrup).