

## Pyrocat-HD Film Developer

### In your Pyrocat-HD Kit:

#### Solution A:

Add distilled water to the neck of the bottle. Shake well and let stand 10 minutes before using.

#### Solution B:

Is sent in solution and is ready to use.

Pyrocat-HD is a semi-compensating, high-definition developer formulated by Sandy King as an alternative to PMK. The advantages over PMK that Mr. King cites for his formula include an approximately 1/3-stop greater effective film speed, 10-15% shorter development times, more consistent staining action, lower toxicity, and no streaking or mottling with reduced agitation. Other users have reported reduced printing times with UV light sources compared with PMK negatives (for alt process work) due to the different stain color, as well as reduced base plus fog density compared with PMK and Rollo Pyro negatives in rotary processors.

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	<p>Sandy King's experiments have centered on sheet film, as he works primarily in large format (4x5, 5x7, 7x17, and 12x20). His development recommendations are as follows:</p> <p><b>Sheet film in trays, normal agitation:</b> standard working solution, with agitation for 10 seconds every minute (or 5 seconds twice per minute), 70° F.</p> <p><b>Sheet film in trays, minimal agitation:</b> standard working solution, with agitation for 10 seconds every three minutes, 70° F. Development times are approximately 50% longer</p>	

approximately 50% longer than for normal agitation.

**Sheet film in trays, semi-stand agitation:** special working solution of 1 part A with 1 part B with 200-400 parts water. Agitation is for one minute at start of development, followed by 30 seconds at the half-way point. Development time for slow and medium-speed films is 40-50 minutes, 70° F.

Development time for fast films is 50-60 minutes. Dichroic fog may result from extended development of high speed films. If this is a problem in your work use a 1:1: 200 dilution and reduce development to about 30 minutes.

**Sheet film in rotary processor, continuous agitation:** use a minimum of 75 ml of the standard working solution per sheet of 4x5 film (or equivalent for larger formats).

**Recommended developing times** for sheet film in rotary processor are as follows: FP4+ (EI 100) for 8 minutes, BPF-200 (EI 100) for 9 minutes, T-MAX 400 (EI 320) for 12 minutes, and HP5+ (EI 320) for 13 minutes, all at 70° F.

Presoak film for two minutes. Use a plain water stop bath for one minute. Use an alkaline fixer (rapid fix without hardener) for 5 minutes. Wash in running water 10-15 minutes.

The working solution can be made quite a bit more energetic (faster working) by

doubling the amount of B solution. For example, with a 1:1:100 dilution, Ilford FP4+ develops to a CI of .52 in 8 minutes. With a 1:2:100 dilution, development time to the same CI is only 5:30. This fact makes the 1:2:100 dilution very useful for zonal expansion, especially for negatives intended for use with alternative processes.

<b>Film</b>	<b>EI</b>	<b>70°</b>	<b>75°</b>	<b>80°</b>
Ilford HP-5+	200	13 min	<b>10 min</b>	<b>8 min</b>
Kodak T-Max 100	64	14 min	11 min	<b>9 min</b>
Kodak T-Max 400	400	15 min	12 min	<b>10 min</b>
Kodak Verichrome Pan	125	9 min	<b>7.5 min</b>	<b>6 min</b>

All the above times are for the 1:1:100 dilution.