

film development

0	mix dev	see developer mix chart	
1	pre-soak	in water	1'
2	develop *	see time / temp chart	
3	stop	with water	1'
4	fix *	in fresh Fixer	3'
5	rinse	in water	1'
6	check fixer	with Hypo-Check	
7	fixer-remover *	save if not exhausted, otherwise pour into Silver Recovery System	3'
8	wash	in Tank or Wash Tube	5'
9	wetting agent		1'
10	dry	in Film Dryer	12'
11	cut and sleeve	at Light Table	
12	dry and store	tank & reels	

*agitate **all** active chemicals 5 seconds every 30

developing procedure

- make sure there is enough Developer and fresh Fixer available
- fill a beaker with the right amount of water,
at the same temperature that will be used to develop,
according to the **developer mix chart**
all other chemicals will be used at this temperature!
- add the proper amount of developer - this is the **working solution**
- use the **time / temp chart** to determine the developing time,
according to the film type and temperature of the working developer
- after pre-soaking, pour the developer into the film developing tank
then start the timer and agitate the tank for the first 30 seconds
- agitate consistently 5 seconds every 30 seconds for the remaining time
- begin pouring out the developer 15 seconds before the developing time is up
- pour water into the tank as soon as the timer stops
this will halt the action of the developer

developer mix chart

SPRINT standard mixed 1:9

<u>film</u>	<u>Sprint</u>	<u>water</u>	<u>total</u>
1 roll - 35 mm	1 oz.	9 oz.	10 oz.
1 roll - 2 1/4"	1.8 oz.	16.2 oz.	18 oz.
2 rolls - 35 mm	2 oz.	18 oz.	20 oz.
5 rolls - 35 mm	5 oz.	45 oz.	50 oz.
3 rolls - 2 1/4"	5.4 oz.	48.6 oz.	54 oz.

<u>film</u>	<u>Sprint</u>	<u>water</u>	<u>total</u>
1 roll - 35 mm	29 ml.	261 ml.	290 ml.
1 roll - 6 cm	50 ml.	450 ml.	500 ml.
2 rolls - 35 mm	58 ml.	522 ml.	580 ml.
5 rolls - 35 mm	145 ml.	1305 ml.	1450 ml.
3 rolls - 6 cm	150 ml.	1350 ml.	1500 ml.

time / temp chart

SPRINT standard mixed 1:9

developing times in minutes
for the following temperatures in degrees F

65° 68° 70° 72° 75°

Kodak Tri-X₄₀₀, Ilford HP-5+₄₀₀, Arista Premium₄₀₀

12 1/2 10 9 8 6 1/2

Arista.EDU ultra₄₀₀, Foma₄₀₀

16 13 11 3/4 10 1/2 8 1/2

Fuji Neopan₄₀₀, LegacyPro₄₀₀

10 1/2 8 1/2 7 1/2 7 5 1/2

Forte₄₀₀, Adox₄₀₀

18 1/2 15 13 1/2 12 1/2 10

Kodak T-Max*₄₀₀, Ilford Delta*₄₀₀, Kentmere₄₀₀, Fuji Neopan₁₆₀₀

14 11 1/2 10 1/4 9 1/4 7 1/2

*tabular grain films are not recommended for printing in condenser enlargers