ILFORD PHOTO

Film processing chart

20°C / 68°F

Developer	Dilution	PANF PLUS		FP4 PLUS			HP5 PLUS							DELTA 100 PROFESSIONAL			DELTA 400 PROFESSIONAL							DELTA 3200 PROFESSIONAL						SFX 200		
	EI	25	50	50	125	200	200	250	320	400	800	1600	3200	50	100	200	200	250	320	400	500	800	1600	3200	400	800	1600	3200	6400	12500	200	400	800
ILFOTEC DD-X	1+4	7	8	8	10	12				9	10	13	20	8	10.5	12.5	6			8	9.5	10.5	13.5	18	6	7	8	9.5	12.5	17	10	14	
ILFOTEC LC29	1+9				4	5				3.5	5	7.5	11						4			5.5	7.5	13			5	8	13		5	7	10.5
	1+19		4	6	8	9				6.5	9.5	14		5	6	8	5			7.5		10	13.5		6	7.5	9	14.5			9	13	19
	1+29		5.5	8	12					9				5.5	7.5	10	8.5			11.5		17									11		
ILFOTEC HC	1+15				4	5				3.5	5	7.5	11						4			5.5	7.5	13			5	8	13		5	7	10.5
	1+31		4	6	8	9				6.5	9.5	14		5	6	8	5			7.5		10	13.5		6	7.5	9	14.5			9	13	19
ILFOSOL 3	1+9				4.25		5			6.5	13.5				5		5.5			7		14			6	7.5	10	11	18		6	8.5	
	1+14		4.5		7.5		7			11	19.5				7.5		8			12		20.5			11	13	15.5	17	23		9	13.5	
ID11	Stock	4.5	6.5	6.5	8.5	10				7.5	10.5	14		7	8.5	10.5	7			9.5		11.5	14.5	19	7	8	9.5	10.5	13	17	10	14	18
	1+1	6	8.5	8	11	15				13	16.5			10	11	13	10			14		17.5									17		
	1+3	12.5	15	17	20					20				15	20		18																
MICROPHEN	Stock		4.5		8	9				6.5	8	11	16		6.5	8	5			6.5	7.5	8.5	10.5	14	6	7	8	9	12	16.5	8.5	10.5	14.5
	1+1		6		10	14				12	15				10	14	8.5			11.5	13.5	15.5	19								15.5	19	
	1+3		11		14	18				23					14	20	16																
PERCEPTOL	Stock	9	14	9	12			13						12	15		10	12							11	13	15	18			14.5		
	1+1	10.5	15	13	15				18					13	17		12.5		15.5												20		
	1+3	15	17	17	21				25					16	22		18.5																
D-76	Stock	4.5	6.5	6	8	9				7.5	9.5	12.5		7	9	11	7			9.5		11.5	14.5	19	7	8	9.5	10.5	13	17	10	12.5	16.5
	1+1	6	8.5	9	11	15				11	13	18		9.5	12	14	10		12.5	14		17.5			9.5			12	26		14.5	17	
	1+3	12.5	15	14	16	20				22				14	22		18					32											
RODINAL	1+25		6		9	13				6	8	12	18	7	9		6.5			9		18.5			5.5	7	9	11	20		6		
	1+50		11		15	20				11	16	24		10	14		11			20											10		
T-MAX	1+4		4		8	9				6.5	8	9.5	11.5	6	7	8	5			6.5	7	8.5	10.5	13.5	5.5	6.5	7.5	8.5	11	14	8.5	10.5	12.5
XTOL	Stock	5.5	6.75	6.5	8.5	10				8	11	14	19	6.5	7.5	9.5	6			7.5	8.5	10	13	17	5	6	6.5	7.5	10	12.5	7	11	
	1+1	6.75	7.75	8.5	10					12	17	18	22.5	9	10.5	12	9			11.5	13	15.5	20				15	18			9		
	1+2	8.75	10	10	11.5					15.5	18	21	28	11	13	15																
	1+3	10.5	12	12.5	14.75					18	23	27.5		13.5	15.5	17.5																
HC 110	A 1+15				4.5	6					3.5	5.5	9.5						4			5.5	7.5	13		4.5	5	8	13		5		
	B 1+31		4	6	9	12				5	7.5	11		5	6	8	5			7.5		10	13.5		6	7.5	9	14.5			9	13	19
	E 1+47		5.5							7.5				5.5	7.5	10																
ACUFINE	Stock		3.5		4	6				4.5	6.5	9.5				5.5	7			9	11	13	16	19									
SPRINT	1+9		8.5		8.5					10	13				8.5					11.5												

CAUTION: These times are intended as a **guide only**. Times shorter than 5 minutes may lead to uneven development

AGITATION: For manual processing in spiral tanks and deep tanks, the development times are based on intermittent agitation. With spiral tanks, invert the tank 4 times during the first 10 seconds, then invert a further 4 times during the first 10 seconds for each further minute. Where continuous agitation is used for manual processing (as in a dish/tray or with some types of developing tank), reduce these times by up to 15%. For use in rotary processors without a pre-rinse, reduce the spiral tank development times by up to 15%. A pre-rinse is not recommended as it can lead to uneven processing.

FIXATION: After development, rinse the film in water or ILFORD ILFOSTOP (1+19) for 10 seconds at 20°C/68°F, and fix in HYPAM or RAPID FIXER (1+4) for 2-5 minutes at 20°C/68°F.

WASHING: Where a non hardening fixer , such as HYPAM or RAPID FIXER, has been used, wash the film in running water for 5-10 minutes at a temperature within 5°C/9°F of the processing temperature.

* Times shown in red are taken from the Massive Dev Chart and have not been verified by us. They have been included with the kind permission of Digitaltruth Photo
http://www.digitaltruth.com/devchart.php