

ILFORD FILM PROCESSING CHART

20°C/68°F	PAN F PLUS		FP4 PLUS		HP5 PLUS		DELTA 100 PRO		DELTA 400 PROFESSIONAL		DELTA 3200 PROFESSIONAL		SFX 200															
	25	50	75	100	125	150	175	200	250	320	400	500		600	800	1000	1250	200										
ILFOTEC DD-X	1+4	7	8	10	12	9 1/2	12	14	6	8	9 1/2	10 1/2	13 1/2	18	6	7	8	9 1/2	12 1/2	17	10	14						
	stock	4 1/2	6 1/2	8 1/2	10	7	8 1/2	10 1/2	7	9 1/2	11 1/2	14 1/2	17	19	7	8	9 1/2	10 1/2	13	17	10	14	18					
	1+1	6	8 1/2	11	15	10	11	13	10	14	17 1/2													17				
ILFOTEC HC	1+3	12 1/2	15	17	20	15	20	18																				
	1+15			4	5					4		5 1/2	7 1/2	13			5	8	13				5	7	10 1/2			
	1+31	4	6	8	9	6 1/2	9 1/2	14	5	6	8	5			6	7 1/2	9	14 1/2					9	13	19			
ILFOTEC LC29	1+9									4		5 1/2	7 1/2	13			5	8	13				5	7	10 1/2			
	1+19	4	6	8	9	6 1/2	9 1/2	14	5	6	8	5			6	7 1/2	9	14 1/2					9	13	19			
	1+29	5 1/2	8	12					5 1/2	7 1/2	10	8 1/2			11 1/2	17									11			
ILFOSOL S	1+9	4	4 1/2	6 1/2	7 1/2	4 1/2	6		4 1/2	6					6 1/2	8	10 1/2	13					9 1/2	11 1/2	19			
	1+14	6	7 1/2	9 1/2					6 1/2	10	10				13									13	19			
	stock	-	4 1/2		8	9	6 1/2	8	11	16		6 1/2	7 1/2	8 1/2	10 1/2	14	6	7	8	9	12	16 1/2	8 1/2	10 1/2	14 1/2			
MICROPHEN	1+1	-	6	10	14	12	15		10	14	8 1/2				11 1/2	13 1/2	15 1/2	19						15 1/2	19			
	1+3	-	11	14	18	23			14	20	16																	
	stock	9	14	9	12	13			12	15	10	12																
PERCEPTOL	1+1	10 1/2	15	13	15	18			13	17	12 1/2						15 1/2											
	1+3	15	17	17	21	25			16	22	18 1/2																	
	stock			4	6						5 1/2	7																
ACUFINE	1+25	6	9	13		6	8		7	9	6 1/2																	
	1+50	11	15	20		11			10	14	11																	
	stock	4 1/2	6 1/2	6	8	9	7 1/2	9 1/2	12 1/2	7	9	11	7		9 1/2	11 1/2	14 1/2	19	7	8	9 1/2	10 1/2	13	17	10	12 1/2	16 1/2	
D-76	1+1	6	8 1/2	9	11	15			9 1/2	12	14	10			14	17 1/2												
	1+3	12 1/2	15	14	16	20			14	22	18																	
	stock	4 1/2	6 1/2	6	8	9	7 1/2	9 1/2	12 1/2	7	9	11	7		9 1/2	11 1/2	14 1/2	19	7	8	9 1/2	10 1/2	13	17	10	12 1/2	16 1/2	
HC 110 A	1+15														4		5 1/2	7 1/2	13									
	1+31	4	6	9	12		5	7 1/2	11						7 1/2	10	13 1/2											
	stock	12	15	10	15				12	15	11				13 1/2													
MICRODOL-X	1+3	15	18	17	23				16	22																		
	1+4	4	8	9	6 1/2	8	9 1/2	11 1/2	6	7	8	5			6 1/2	7	8 1/2	10 1/2	13 1/2	5 1/2	6 1/2	7 1/2	8 1/2	11	14	8 1/2	10 1/2	12 1/2
	stock	5 1/2	6 3/4	8 1/2	10		8	11	14	19	6 1/2	7 1/2	9 1/2	6	7 1/2	5	6	6 1/2	7 1/2	10	12 1/2	10	12 1/2	7	11			
T-MAX	1+1																											
	1+1																											
	1+1																											

DEVELOPMENT TIMES

Follow the recommended times in the chart for the film/developer combination of your choice.

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 four times during the first 10 seconds, then invert the tank four times again 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 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 or ILFOSTOP PRO stop bath (1+19) for 10 seconds at 20°C/68°F, and fix in ILFORD HYPAM or ILFORD RAPID FIXER (1+4) for 2-5 minutes at 20°C/68°F.

WASHING

Where a non-hardening fixer, such as HYPAM or ILFORD 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.

Some products in this chart may not be available in your country.

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