

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											
		EI	25	50	50	125	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	9½	12	14	6			8	9½	10½	13½	18	6	7	8	9½	12½	17	10	14	
ID-11	stock		4½	6½	6½	8½	10			7½	10½	14		7	8½	10½	7			9½	11½	14½	19	7	8	9½	10½	13	17	10	14	18	
	1+1		6	8½	8	11	15			13	16½			10	11	13	10			14	17½									17			
	1+3		12½	15	17	20			20					15	20		18																
ILFOTEC HC	1+15				4	5				5	7½	11					4			5½	7½	13			5	8	13		5	7	10½		
	1+31		4	6	8	9			6½	9½	14			5	6	8	5		7½	10	13½			6	7½	9	14½		9	13	19		
ILFOTEC LC29	1+9				4	5				5	7½	11					4			5½	7½	13			5	8	13		5	7	10½		
	1+19		4	6	8	9			6½	9½	14			5	6	8	5		7½	10	13½			6	7½	9	14½		9	13	19		
	1+29		5½	8	12				9					5½	7½	10	8½		11½	17									11				
ILFOSOL S	1+9		4	4½	6½	7½			7	8½	14			4½	6		6½		9	14				6½	8	10½	13		9½	11½	19		
	1+14		6	7½	9½				9½	14				6½	10		10		13										13	19			
MICROPHEN	stock	-	4½		8	9			6½	8	11	16		6½	8	5		6½	7½	8½	10½	14		6	7	8	9	12	16½	8½	10½	14½	
	1+1	-	6		10	14			12	15				10	14	8½		11½	13½	15½	19								15½	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		14½				
	1+1		10½	15	13	15		18						13	17		12½	15½											20				
	1+3		15	17	17	21		25						16	22		18½																
ACUFINE	stock				4	6			4½	6½	9½			5½	7		9	11	13	16													
RODINAL	1+25		6		9	13			6	8				7	9		6½		9					5½	7	9	11	20					
	1+50		11		15	20			11					10	14		11		20														
D-76	stock		4½	6½	6	8	9		7½	9½	12½			7	9	11	7		9½	11½	14½	19	7	8	9½	10½	13	17	10	12½	16½		
	1+1		6	8½	9	11	15		11	13				9½	12	14	10		14	17½									14½				
	1+3		12½	15	14	16	20		22					14	22		18																
HC 110 A	1+15				4½	6				5½	9½						4		5½	7½	13			5	8	13		5					
HC 110 B	1+31		4	6	9	12			5	7½	11			5	6	8		7½	10	13½			6	7½	9	14½		9					
MICRODOL-X	stock		12	15	10	15								12	15		11	13½						10	11½	13	18						
	1+3		15	18	17	23								16	22																		
T-MAX	1+4		4		8	9			6½	8	9½	11½		6	7	8	5		6½	7	8½	10½	13½	5½	6½	7½	8½	11	14	8½	10½	12½	
XTOL	stock		5½	6¾		8½	10		8	11	14	19		6½	7½	9½	6		7½	8½	10	13	17	5	6	6½	7½	10	12½	7	11		
	1+1								12	17							9		11½	13	15½	20											

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 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 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.