

Kodak Professional

Processing Roll Films in Rotary Tubes

Development times shorter than 4 minutes may produce unsatisfactory uniformity.

ROLL FILM	FORMAT	EI	CI	Rotary Tube, Fresh, Full Strength Developer				Rotary Tube, Fresh 1:1 Developer				Rotary Tube, Seasoned (Replenished) Developer			
				65°F (18°C)	68°F (20°C)	70°F (21°C)	75°F (24°C)	68°F (20°C)	70°F (21°C)	75°F (24°C)	80°F (27°C)	65°F (18°C)	68°F (20°C)	70°F (21°C)	75°F (24°C)
KODAK PROFESSIONAL TRI-X 400 Film / 400TX	135/120	100/200	0.52	7¼	6¼	5¾	4¼	—	—	—	—	9	7½	6¾	5
		400/800	0.56	8	7	6¼	4¾	9	8½	7¼	—	10	8½	7½	5½
		800	0.62	9¼	8	7¼	5½	—	—	—	—	11¾	9¾	8¾	6½
		1600	0.72	11¼	9¾	8¾	6¾	13¼	12¼	10½	—	14½	12¼	10¾	8
		3200	0.82	—	11½	10½	8	15½	14½	12¼	—	—	14¾	13	9¾
KODAK PROFESSIONAL T-MAX 100 Film / 100TMX	135/120	25/50	0.52	8¼	6¾	6	4¾	9	8	6¼	4¾	10	8¼	7¼	5½
		100/200	0.56	8¾	7¼	6½	5	9¾	8¾	6¾	5	11	9	8	6
		200	0.62	9¾	8	7¼	5½	10½	9½	7¼	5½	12¼	10	8¾	6½
		400	0.72	11½	9½	8½	6½	12¼	10¾	8¼	6¼	14¾	12	10½	7¾
		800	0.82	12¾	10½	9½	7¼	13¼	11¾	9	7	16½	13½	11¾	8¾
KODAK T-MAX 400 Professional / TMY; KODAK T-MAX 400 Pro; KODAK PROFESSIONAL T-MAX 400 Film / 400TMY	135/120	100/200	0.52	—	—	—	—	—	—	—	—	—	—	—	—
		400	0.56	7¼	6½	6¼	5¼	9¼	8½	7	—	—	—	—	—
		800	0.62	—	6½	6¼	5¼	9¼	8½	7	—	—	—	—	—
		1600	0.72	—	8½	8	6½	12¼	11	9	—	—	—	—	—
		3200	0.82	—	9¾	9	7¼	13¾	12½	10	—	—	—	—	—
KODAK PROFESSIONAL T-MAX P3200 Film / P3200TMZ	135	400	0.52	10¾	9½	8½	6¾	12½	11½	10	8	13½	11¼	10¼	7¾
		800	0.56	12¼	10½	9½	7½	14	13	11½	9	15¼	12¾	11½	8¾
		1600	0.62	13½	11½	10½	8¼	16	14	12½	10	17	14¼	13	9¾
		3200	0.72	15½	13½	12¼	9½	18½	16½	14½	11½	20	17	15¼	11½
		6400	0.82	17¾	15¼	14	11	20½	18½	16	13	23	19¾	17½	13¼
		12500	0.92	20	17¼	15¾	12¼	22½	20½	18	14½	26	22	19½	15
		25000	1.02	22	19	17½	13¾	25	23	20	16	28¾	24½	21¾	16½

ILFORD

PHOTO

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ROLL FILM	FORMAT	EI	CI	Rotary Tube, Fresh, Full Strength Developer				Rotary Tube, Fresh 1:1 Developer				Rotary Tube, Seasoned (Replenished) Developer			
				65°F (18°C)	68°F (20°C)	70°F (21°C)	75°F (24°C)	68°F (20°C)	70°F (21°C)	75°F (24°C)	80°F (27°C)	65°F (18°C)	68°F (20°C)	70°F (21°C)	75°F (24°C)
ILFORD PAN F Plus	135	25	0.52	5	4¾	4½	2¾	5	4½	3½	3	7	6¼	5½	3¼
		50	0.58	6	5½	5	3¼	5¾	5¼	4	3¼	8½	7¼	6½	4
		100	0.65	7	6½	6	3¾	6½	6	4¾	3¾	10	8½	7½	5
		200	0.75	8	7½	7	4½	7½	7	5½	4¼	12	10¼	9½	6
		400	0.85	9½	8¾	8	5¼	8½	8	6¼	4¾	14½	12½	11	7
ILFORD FP-4 Plus	135	32/64	0.52	6	5¼	4½	3	6¼	5½	4	3	9½	7¾	6½	4½
		125	0.58	7	6	5½	3¾	7¼	6½	4¾	3½	11	9	7½	5¼
		250	0.65	8½	7½	6½	4½	8¼	7½	5½	4	13	10¾	9½	6¼
		500	0.75	10½	9	8	5½	9¾	9	6¾	5	16	13½	12	7¾
		1000	0.85	12½	11	10	6¾	11¼	10½	8	6	19	16	14	9½
ILFORD HP-5 Plus	135	100/200	0.52	6	5	4½	3½	7½	6½	4½	3½	8½	6¾	5½	4
		400	0.58	7½	6¼	5½	4¼	9	8	5½	4¼	9½	7¾	6½	5
		800	0.65	9	7½	6½	5	10½	9½	7	5¼	11½	9½	8	6
		1600	0.75	11	9½	8½	6¼	12½	11½	9	6½	14	11½	10	7¼
		3200	0.85	13½	11½	10½	8	15	14	11	8¼	17	14¼	12½	9
ILFORD DELTA 100 Professional	135	25/50	0.52	5½	5	4½	3½	6¾	6	4¼	3½	8½	7¼	6½	4¼
		100	0.58	7	6	5½	4¼	7¾	7	5	4	10½	8½	7½	5¼
		200	0.65	9	7½	6½	5	8¾	8	6	5	13	10½	9	6½
		400	0.75	11½	9	8	6¼	11	10	7½	6	16½	13½	11½	8
		800	0.85	14	11½	10	7½	13½	12	9	7	20	16½	14½	10
ILFORD DELTA 400 Professional	135	100/200	0.52	6	5¼	4¾	3¼	7	6	4½	3¼	7½	6¼	5½	4
		400	0.58	7	6¼	5½	3¾	8	7	5¼	4	8½	7	6¼	4½
		800	0.65	8	7	6¼	4½	9	8	6	5	10	8¼	7¼	5¼
		1600	0.75	9½	8	7¼	5¼	11	10	7½	6	12	9½	8½	6¼
		3200	0.85	11	9¼	8½	6¼	13½	12½	9½	7½	14½	11½	10	7½