

Kodak

EXPOSURE GUIDE

FOR BLACK-AND-WHITE AND COLOUR FILMS

Light Subjects

Scenes in which the main area of interest is dominated by light objects or surfaces, (e.g. distant scenery, beach scenes, high altitude snow, etc.); *close aperture* $\frac{1}{2}$ stop.



Average Subjects

Scenes in which the main area of interest contain about equal amounts of light and dark objects or surfaces—gardens, houses and nearby people in the more common surroundings. Use this class if in any doubt.



Dark Subjects

Scenes in which the main area of interest is dominated by dark objects or surfaces, e.g. people in dark clothing, dark flowers, foliage, animals and buildings. Usually subjects must be close to the camera to qualify in this class; *open aperture* $\frac{1}{2}$ stop.



The exposures given in the table under sunshine conditions are for front lighting on average subjects.

For nearby side- or back-lit subjects under sunshine conditions, give $\frac{1}{2}$ to 1 stop more exposure.

In winter, and within two hours after sunrise and before sunset, open aperture 1 stop.

KODAK BLACK-AND-WHITE AND COLOUR FILM EXPOSURE GUIDE

'KODAK' FILM	METER SETTING FOR DAYLIGHT							Fill-in flash distances for use with side- or back-lit subjects in bright sun					'KODAK' FILM	METER SETTING FOR PHOTOFLOOD			
	ASA BS Arith	BS Log	DIN	Adjustable cameras, with blade shutters				Aperture	Shutter Speed	Synch	AGIB in 2" reflector PFIB or No. IBS in 4" reflector	PFIB or No. IBS in 2" reflector		ASA BS Arith	BS Log	DIN	
				BRIGHT or HAZY SUN Distinct shadows	WEAK HAZY SUN Soft shadows	CLOUDY BRIGHT No shadows	CLOUDY DULL or OPEN SHADE										
'KODACHROME' II Daylight	25	25°	15	EXPOSURE FOR AVERAGE SUBJECTS				f/16 or f/8	1/30 1/125	X M	6-11 feet 10-18 feet	5-9 feet 8-13 feet	'KODACHROME' II Daylight	12	22°	12	
'KODACHROME' II Type A	25	25°	15 <i>with No. 85 Filter</i>	f/11 EV 13	Shutter set to 1/60 second f/8 EV 12		f/5.6 EV 11							f/4 EV 10	40	27°	17
'KODACHROME-X'	64	29°	19	f/11 EV 14	Shutter set to 1/125 second f/8 EV 13		f/5.6 EV 12	f/4 EV 11	f/22 or f/11	1/30 1/125	X M	7-12 feet 11-19 feet	6-10 feet 9-16 feet	'KODACHROME-X'	25	25°	15
'EKTACHROME-X'					25	25°	15										
'KODACOLOR-X'					40	27°	17										
HIGH SPEED 'EKTACHROME' Daylight	160	33°	23	f/16*	Shutter set to 1/250 second f/11* EV 15		f/8* EV 14	f/4.5 EV 12½	f/16*	1/250	M	9-18 feet	8-13 feet	HIGH SPEED 'EKTACHROME' Daylight	80	30°	20
'PANATOMIC-X'	40	27°	17	f/8 EV 13	Shutter set to 1/125 second f/5.6 EV 12		f/4 EV 11	f/2.8 EV 10	f/11	1/60	M	The use of fill-in flash is not so essential with black-and-white films. However, if you want to lighten the shadows, use the apertures and shutter speeds (M synch) indicated and a flash-to-subject distance of 7-12 feet. Use either the bulbs listed above or the equivalent clear flashbulbs.	'PANATOMIC-X'	40	27°	17	
'VERICHROME' PAN 'PLUS-X' PAN	125	32°	22	f/16 EV 15	Shutter set to 1/125 second f/11 EV 14		f/8 EV 13	f/5.6 EV 12	f/16	1/125	M		'VERICHROME' PAN 'PLUS-X' PAN	125	32°	22	
'TRI-X' PAN	400	37°	27	f/22 EV 17	Shutter set to 1/250 second f/16 EV 16		f/11 EV 15	f/8 EV 14	f/22	1/250	M		'TRI-X' PAN	400	37°	27	
'ROYAL-X' PAN	1250	42°	32	Not Recommended			Shutter set to 1/250 second f/16 EV 16		f/11 EV 15	Not Recommended			'ROYAL-X' PAN	1250	42°	32	

*With focal plane shutters use ½ stop larger lens aperture.

**GUIDE NUMBERS FOR FLASH
AS SOLE LIGHT SOURCE:**

BLUE BULBS

'KODAK' FILM	Synchronization and Shutter Speed	Between-Lens Shutters			Focal-Plane Shutters	
		AGIB 2" refl.	PFIB No. IBS 2" refl.	PFIB No. IBS 4" refl.	PF24 /97	PF45 /97
'KODACHROME' II Daylight	X 1/25 -1/30	64	50	64	—	—
	M 1/50 -1/60	56	45	56	45	64
	M 1/100-1/125	50	40	50	32	45
	M 1/200-1/250	40	32	40	22	32
'KODACHROME-X' Daylight	X 1/25 -1/30	100	80	100	—	—
	M 1/50 -1/60	90	72	90	72	100
'EKTACHROME-X' Daylight	M 1/100-1/125	80	64	80	50	72
	M 1/200-1/250	64	50	64	36	50
HIGH SPEED 'EKTACHROME' Daylight	X 1/25 -1/30	160	125	160	—	—
	M 1/50 -1/60	140	110	140	110	160
	M 1/100-1/125	125	100	125	80	110
	M 1/200-1/250	100	80	100	56	80

FLASH WITH EARLY KODAK 'COLORSNAP' CAMERAS (up to Colorsnap II)

Flashholder	Blue Flashbulbs	Light Setting Numbers For 'KODACHROME' II FILM Daylight Type					
		No. IBS, PFIB	No. IBS, PFIB	AGIB	No. IBS, PFIB	No. IBS, PFIB	AGIB
II, No.3	No. IBS, PFIB	2	3	4	6	8	10
No.4	No. IBS, PFIB	3	4	5	7	9	11
No.5	AGIB	2	3	4	6	8	10
Flash-to-subject distance		4 ft	5 ft	6 ft	8 ft	10 ft	14 ft

FLASH WITH OTHER KODAK 'COLORSNAP' CAMERAS
Flash-to-subject distance in feet

FILM	EV 10	EV 11	EV 12	EV 13	EV 14	EV 15
using PFIB or No. IBS in Flashholder 4						
'KODACHROME' II	8-12	6-8	4-6	—	—	—
'KODACHROME-X'	13-19	9-13	7-10	4½-7	3½-5	—
'EKTACHROME-X'						
HIGH SPEED 'EKTACHROME'	19-24	15-22	10-15	7-11	5-6½	3-4
using PFI or No. I in Flashholder 4						
'KODACOLOR-X'	12-21	8-15	6-11	4-8	3-5½	—
'PANATOMIC-X'	7-21	5-16	4-12	3-8	2½-6	—
'PLUS-X'	14-36	10-32	8-24	6-18	4-12	2½-7
'TRI-X' PAN	22-60	17-52	12-36	9-27	6-18	3½-12

**GUIDE NUMBERS FOR FLASH
AS SOLE LIGHT SOURCE:**

CLEAR BULBS

'KODAK' FILM	Synchronization and Shutter Speed	Between-Lens Shutters			Focal-Plane Shutters	
		AG I 2" refl.	PFI No. I 4" refl.*	PF5 No. 5	PF24	PF45
'KODACHROME' II Type A (with No. 81C Filter)	X 1/25 -1/30	80	64	100	—	—
	M 1/50 -1/60	72	56	90	64	90
	M 1/100-1/125	64	50	80	45	64
	M 1/200-1/250	50	40	64	32	45
'KODACOLOR-X'	X 1/25 -1/30	125	100	160	—	—
	M 1/50 -1/60	110	90	140	100	140
	M 1/100-1/125	100	80	125	72	100
	M 1/200-1/250	80	64	100	50	72
'PANATOMIC-X'	X 1/25 -1/30	100	80	125	—	—
	M 1/50 -1/60	90	72	110	80	110
	M 1/100-1/125	80	64	100	56	80
	M 1/200-1/250	64	50	80	40	56
'VERICHROME' PAN 'PLUS-X' PAN	X 1/25 -1/30	180	140	220	—	—
	M 1/50 -1/60	160	125	200	140	200
	M 1/100-1/125	140	110	180	100	140
	M 1/200-1/250	110	90	140	72	100
'TRI-X' PAN	X 1/25 -1/30	320	250	400	—	—
	M 1/50 -1/60	280	220	360	250	360
	M 1/100-1/125	250	200	320	180	250
	M 1/200-1/250	200	160	250	125	180

*For 2" reflectors, open aperture ½ stop.

Guide numbers are for use in average rooms with medium-coloured walls and furnishings. In smaller rooms with light-coloured walls and low ceilings, use one stop less than that given by the guide number, e.g., f/11 instead of f/8. In large rooms, or outdoors after dark, use one stop more, e.g., f/5.6 instead of f/8.

Flash-to-subject distance = $\frac{\text{Guide number}}{f/\text{No.}}$ $f/\text{No.} = \frac{\text{Guide number}}{\text{Flash-to-subject distance}}$

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Scenes in which the main area of interest is dominated by light objects or surfaces, (e.g. distant scenery, beach scenes, high altitude snow, etc.); close aperture ½ stop.



Average Subjects

Scenes in which the main area of interest contain about equal amounts of light and dark objects or surfaces—gardens, houses and nearby people in the more common surroundings. Use this class if in any doubt.



Dark Subjects

Scenes in which the main area of interest is dominated by dark objects or surfaces, (e.g. people in dark clothing, dark flowers, foliage, animals and buildings. Usually subjects must be close to the camera to qualify in this class; open aperture ½ stop.

The exposures given in the table under sunshine conditions are for front lighting on average subjects. For nearby side- or back-lit subjects under sunshine conditions, give ½ to 1 stop more exposure. In winter, and within two hours after sunrise and before sunset, open aperture 1 stop.

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