QUICK-REFERENCE GUIDE

ASA

INDEXES FOR PHOTOGRAPHIC FILM

IKOPHOT RAPID

The Meter You NEED For the Pictures You WANT

ZEISS IKON

A.S.A. EXPOSURE INDEXES

The following A.S.A. (American Standards Association) exposure indexes, furnished by the film manufacturers, indicate the approximate relative sensitivity of the more commonly used photographic negative materials. It must be remembered, however, that many factors will influence precise speed values, including type of processing or development, degree of contrast desired, and purpose for which negative is made. In some cases, the next higher or lower speed index number may be found desirable. Experience and judgment will enable the photographer to quickly ascertain the value giving best results.

In all cases, readings of the Zeiss Ikon Ikophot Rapid exposure meter and meters built into Zeiss Ikon cameras can be relied upon, since they are endowed with unusual precision and accuracy . . . assuming they are in correct operative condition and used properly.

BLACK AND WHITE FILM

ADOX

Roll Film	Day-light	Tung-sten
Adox R-14	20	16
Adox R-17	40	32
Adox R-21	100	80
35mm Film		
Adox KB-14	20	16
Adox KB-17	40	32
Adox KB-21	100	80

AGFA

Roll & 35mm Film		
Isopan FF	16	12
Isopan F	40	32
Isopan ISS	100	80
Isopan Ultra	250	400
Isopan Record	640	640
Sheet Film		
Isopan FF	16	12
Isopan Portrait Matte	100	80
Isopan Portrait Clear	100	80
Isopan Ultra	250	400

ANSCO	Day-light	Tung-sten
Roll & Pack Film		
All-Weather Pan	125	100
Super Hypan	500	400
35mm Film		
Super Hypan	500	400
Cine Film (16mm)		
Super Hypan Neg.	500	400
Sheet Film		
Commercial	50	12
Commercial Ortho	50	25
Super Hy-Ortho	250	125
Triple-S Ortho	250	125
Superpan Portrait	100	80
Versapan	100	80
Type 282	100	80
Superpan Press	200	160
Triple-S Pan	400	320
Super Hypan	500	400

The above Ansco Exposure Indexes are determined without a large safety factor in anticipation of a revised American Standard. They are designed to produce by normal negative processing, negatives of average subjects having optimum quality for projection printing. They are approximately double the values obtained in accordance with American Standard PH2.5-1954.

DUPONT	Day-light	Tung-sten
Cine Film (16mm)		
DuPont Rap. Rev. 930-A	80	64
DuPont H.S. Rev. 931-A	160	125
DuPont Superior 2 Neg. 936-A	125	100
DuPont Superior 4 Neg. 928-A	320	250
Sheet Film ("Cronar")		
XF Pan	64	40
High Speed Pan	160	125
Arrow Pan	160	125
Press	200	160

EASTMAN KODAK

Roll Film		
Panatomic-X	25	20
Plus-X Pan Professional	80	64
Verichrome Pan	80	64
Tri-X Pan	200	160
Royal-X Pan	*	*

* An index of 1600 should be used with most exposure meters for most applications of this film. This index does not contain the safety factor which is included in the indexes in the above table.

Film Pack		
Verichrome Pan	80	64
Tri-X Pan	200	160
35mm Film		
Panatomic-X	25	20
Plus-X Pan	80	64
Tri-X Pan	200	160
Infrared	—	20**

** With Kodak Wratten A filter (#25).

	Day-light	Tung-sten
Cine Film (16mm)		
Plus-X Rev.	50	40
Tri-X Rev.	200	160
Sheet Film		
Commercial Ortho	32	10
Super Speed Ortho Portrait	50	25
Royal Ortho	200	125
Panatomic-X	32	25
Portrait Pan	50	32
Super-XX Pan	100	80
Super Panchro-Press Type B	125	100
Tri-X Pan	200	160
Royal Pan	200	160
Royal-X Pan	*	*
Infrared	—	10**

* An index of 1600 should be used with most exposure meters for most applications of this film. This index does not contain the safety factor which is included in the indexes in the above table.

** With Kodak Wratten A filter (#25).

GEVAERT

Roll & 35mm Film		
Gevapan 27	32	20
Gevapan 30	80	64
Gevapan 33	125	100
Gevapan 36	250	160
Cine Film (8 & 16mm)		
Gevapan 30 Rev. T.863A	80	50
Gevapan 36 Rev. T.880	250	200
Sheet Film		
Gevachrome 32	100	50
Gevapan 30	80	64
Gevapan 33	125	80
Gevapan 36	250	160

ILFORD	Day-light	Tung-sten
Roll & Sheet Film		
Ilford FP 3	64	50
Ilford HP 3	200	160
Ilford HPS	400	320
35mm Film		
Ilford Pan F	25	16
Ilford FP 3	64	50
Ilford HP 3	200	160
Ilford HPS	400	320
Cine Film (16mm)		
Ilford Pan F Neg.	25	16
Ilford FP 3 Neg.	64	50
Ilford HP 3 Neg.	200	160
Ilford HPS Neg.	400	320
KIN-O-LUX		
Cine Film (8 & 16mm)		
Kin-O-Lux T-V Rev.	64	50
New Gold Seal Rev.	200	160
PERUTZ		
Roll Film		
Perpantic 18	50	40
Peromnia 21	100	100
Peromnia 25	250	320
35mm Film		
Pergrano 14	20	16
Perpantic 17	40	32
Peromnia 21	100	100
Peromnia 25	250	320

	Day-light	Tung-sten
Cine Film (8 & 16mm)		
Perkine-U 15 Rev.	25	16
Perkine-U 21 Rev.	100	80
Perkine-U 27 Rev.	400	320
Sheet Film		
Perpantic	40	32
Superomnia	100	80
Portrait	100	80
Peromnia 25	250	320

COLOR FILM

Because of the limited latitude of color films, care must be exercised to be precise in meter settings and readings. Follow the instructions furnished with each package of color film.

AGFA		
Roll & 35mm Film		
Agfacolor Negative CN-14	20	20
Agfacolor Negative CN-17	40	40
ANSCO		
Roll & 35mm Film		
Anscochrome, Daylight Type	32	12[a]
Super Anscochrome, Daylight Type	100	40[a]
Super Anscochrome, Tungsten Type (3200 K)[d]	80[c]	100
Cine Film (16mm)		
Anscochrome, Daylight Type	32	12[a]
Anscochrome, Tungsten Type (3400 K)	25[b]	32
Super Anscochrome, Daylight Type	100	40[a]
Super Anscochrome, Tungsten Type (3200 K)	80[c]	100

Cine Film (8mm)	Day-light	Tung-sten
Fairchild Cinephonic (sound striped)	10b	12
Moviechrome • 8	20	8a
Sheet Film		
Anscochrome, Daylight Type	32	12a
Anscochrome, Tungsten Type (3200 K)d	20c	25
Super Anscochrome 6500 (electronic flash — 6500 K)	100	—

a With 80B filter
b With 85 filter
c With 85B filter
d For flash, use 81D filter with normal exposure index; 20 for Anscochrome, 80 for Super Anscochrome.

EASTMAN KODAK

Roll Film		
Ektachrome, Professional, Daylight Type, Process E-3	50	—
Ektachrome, Daylight Type, Process E-2	32	12a
Ektachrome, Type F, Process E-2	16c	16d
Kodachrome, Daylight Type	10	5a
Kodachrome, Type F	10c	12d
Kodacolor	32	20d
35mm Film		
Ektachrome, Daylight Type, Process E-2	32	12a
Ektachrome, Type F, Process E-2	16c	16d
High Speed Ektachrome, Daylight Type	160	—

	Day-light	Tung-sten
High Speed Ektachrome, Type B	80b	125*
Kodachrome, Daylight Type	10	5a
Kodachrome, Type A	10e	16
Kodachrome, Type F	10c	12d
Kodacolor	32	20d
Cine Film (8 & 16mm)		
Kodachrome, Daylight Type	10	5a
Kodachrome, Type A	10e	16
Cine Film (16mm)		
Ektachrome ER, Daylight Type	160	—
Ektachrome ER, Type B	—	125
Sheet Film		
Ektachrome, Daylight Type, Process E-1	12	4a
Ektachrome, Type B, Process E-1	6b	10*
Ektachrome, Daylight Type, Process E-3	50	—
Ektachrome, Type B, Process E-3	25b	32*
Ektacolor, Type L	20b	16*
Ektacolor, Type S	25c	20d

These indexes apply with proper filters such as:

a Kodak Wratten Filter 80B (Kodak Photoflood Filter for Kodak Daylight Type Color Films) with Photoflood lamps.

b Kodak Wratten Filter 85B (Kodak Daylight Filter for Kodak Type B color films).

c Kodak Wratten Filter 85C (Kodak Daylight Filter for Kodak Type F color films).

d Kodak Light Balancing Filter 82A with Photoflood lamps.

e Kodak Wratten Filter 85 (Kodak Daylight Filter for Kodak Type A color films).

* With 3200 K lamps.

SPEED VALUE CONVERSION TABLE

Since various methods in arriving at the different speed value systems are employed, conversion tables should be regarded as being only approximate. The following table will serve as a guide in transposing one system into another with reasonable accuracy.

A.S.A.	Din*	Previous Din	Weston**	USA Scheiner	European Scheiner
5	8	12	4	13	19
6	9	13	5	14	20
8	10	14	6	15	21
10	11	15	8	16	22
12	12	16	10	17	23
16	13	17	12	18	24
20	14	18	16	19	25
25	15	19	20	20	26
32	16	20	24	21	27
40	17	21	32	22	28
50	18	22	40	23	29
64	19	23	50	24	30
80	20	24	64	25	31
100	21	25	80	26	32
125	22	26	100	27	33
160	23	27	125	28	34
200	24	28	160	29	35
250	25	29	200	30	36
320	26	30	250	31	37
400	27	31	320	32	38
500	28	32	400	33	39
650	29	33	500	34	40
800	30	34	650	35	41
1000	31	35	800	36	42
1300	32	36	1000	37	43

* These DIN values conform with modern practice.

** These values apply only to old Weston meter models Modern Weston meters are calibrated in ASA.

COLOR TEMPERATURES

When using color film and compensating filters it is essential to know the color temperature of the existing illumination expressed in degrees Kelvin (K). The color temperatures of common light sources are:

Light Source	Degrees Kelvin
Candle light	1,900 K
House lamps	2,900 K
SM & SF flash bulbs	3,300 K
Photoflood lamps	3,400 K
Warm white fluorescent lamps	3,500 K
Clear flash bulbs (other than SM & SF)	3,800 K
Cool white fluorescent lamps	4,500 K
Sunlight (before 9 a.m. and after 3 p.m.)	5,000 K
Sunlight (between 9 a.m. and 3 p.m.)	5,400 K
Blue flash lamps	6,000 K
Electronic flash	6,500 K
Blue sky (hazy)	9,000 K
Blue sky (in shadow)	12,000 K
Blue sky (clear)	25,000 K

METERS TO FEET CONVERSIONS

Some cameras purchased outside the United States are equipped with lenses calibrated in meters instead of feet. This leads to confusion among owners and, for their guidance, the following table will be helpful:

Meters	Feet (approx.)
0.9	3
1	3′ 4″
1.5	5
2	6′ 8″
3	10
4	13
5	16
8	26
10	33
15	50
20	66
25	83

The following Zeiss Ikon cameras have built-in exposure meters complying with ASA specifications:

CONTAFLEX super & prima

CONTAREX

CONTAX IIIa

CONTINA-matic II & III

SYMBOLICA II

Ask for a demonstration of the Zeiss Ikon camera of your choice, or write for descriptive literature.

All Zeiss Ikon cameras legally entitled to carry the name of Zeiss Ikon are manufactured in West Germany.

ZEISS IKON

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