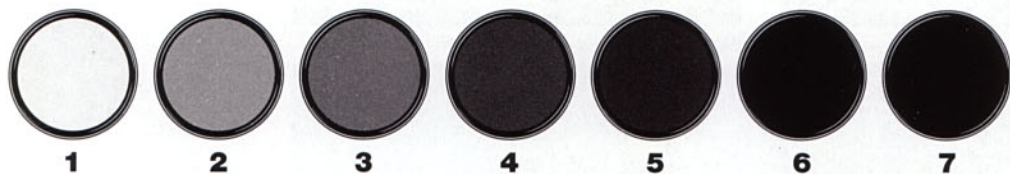


B+W Neutral Density Filters

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1 B+W 101

This light tinted filter reduces light transmission when there is too much light while using high-speed film. Filter factor is 2.

2 B+W 102

By using this filter, it is possible to use relatively longer shutter speeds while retaining a wide aperture even in bright illumination. This allows for the emphasis of the subject by controlling depth of field or creating motion effect with subject blur. Filter factor is 4.

3 B+W 103

This filter is denser than the 102 and more light absorbing. It is suited for video, especially when a small enough lens opening is not available. In addition, a specific depth of field limit can be obtained. Filter factor is 8.

4 B+W 106

This filter is especially useful when making extremely long exposures (several minutes). It is also suited for video. Filter factor is 64.

5 B+W 110

This filter is useful for the observation and documentation of industrial processes at high temperatures and light levels. This type of filter prevents strong flare and brings out interesting details. Filter factor is 1000.

6 B+W 113

This filter belongs in the realm of industrial processes and solar and lunar astrophotography. Due to its high density, it allows for the long exposures which are necessary. Filter factor is 10,000.

7 B+W 120

This filter is especially made for observation and photography of the sun. Be cautioned, however, that direct observation of the sun through any filter is to be strictly avoided since long wavelength infrared radiation, which is harmful to the eye, is not blocked. Filter factor is 1,000,000.

B+W neutral density filters are made out of neutral gray Schott NG-glass. They block the entire visible spectrum evenly and allow light reduction without influencing color rendition or contrast. Sometimes it is necessary to cut down the amount of light with neutral density filters when working with high-speed films. For example, the B+W 102 filter allows exposures with ISO 400/27 degree film as if it were 100/21 degree film. It is often used to portray a subject against an out of focus background. A neutral density filter comes in handy if you would like to increase the aperture more than the light situation and camera capabilities permit. They are also good for the long exposures which are necessary for a blureffect or zooming during the shot.

Neutral density	Filter factor	f-stop reduction	Density
Filter number			(ND)
101	2	1	0.3
102	4	2	0.6
103	8	3	0.9
106	64	6	1.8
110	1 000	10	3.0
113	10 000	13	4.0
120	1 000 000	20	6.0

See pages 47 – 49 for available types and sizes.

Tip

Should combining two filters be necessary, the filter factors must be multiplied together, not added.