

Grasp the grey value you would at all reproduce correctly.
Work out this shot correctly und save its value in your exposure timer.
Now you have the valid value for the whole succeeding series of a similar value.

This way fo example you can achieve by own the values for Zone System, or even create your own version of a zone system.

Colour drift

By the help of a Greystep Card you can recognize different colour drifts of different filmmaterials clearly and optimate your working method.

Make a colour shot of the Greystep Card by normlight with a colour temperature of 5500° Kelvin and filter it out the way, that DN-step is reproduced free of any colour cast.

Start and end of the scale then mostly shows nearly complementary weak colour casts, i.e. the **colour drift** of the used material. Most papers shows a green-magenta colour drift.

This appearance couldn't even today times completely avoided.

Therefore you should accept a compromise. Once test the different materials and then decide for the best suiting material combination.

Electronic Imaging

Greystep Cards are imperativ for calibration of the different output medias of computer or videosystems in electronic imaging and the present one is good to be used this way.

Proceed there as declared in the specification of your software.

Have fun and seccess on your work with our products.

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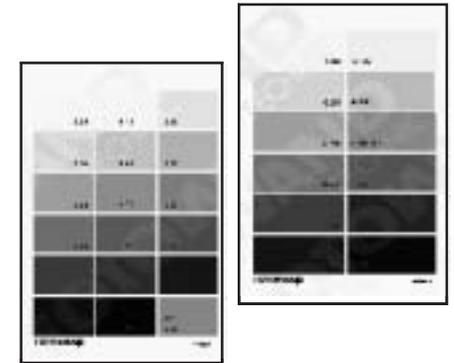
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4960/ 4962 GREYSTEP CARD half size 18/12 steps



Technical Datas

Format	half size 8 1/4" x 5 4/5"
Thickness	1 mm
Material	Polystyrène (frosted) white resp. blackback
Density	12 resp. 18 steps each 1/2 resp. 1/3 blind steps Neutral Grey field DN = 0,75 log D = 17,68 % Reflexion
Colour Stability	7-8 Blue Wool Scale
washable	

Application

As the card is used in the open air, high demands are put on its durability. That is the reason why we have made it washable, strong and highly fade-resistant.

Nevertheless you should treat it with care. Exposure to the sun or other bright light for some time does not harm it.

Over longer periods, however, you should keep it wrapped up to avoid colour changes over the years.

If the card has got dirty, wash it only with water and a little washing-up liquid or, even better, with a plastic cleansing agent. Never use a solvent or a detergent. Avoid scratches. The card is intended to last a photographer's life-time.

You do not, however, have to be overcareful. The Greystep Card can stand a lot. For those of our customers who are irritated by the white border on the card, we recommend the following: Slit the card on the back with a stanley knife, then you

can break it; that way you can remove the white border. The card can also be split in this way.

The white border is a result of production techniques and prevents wear of the greystep area.

Exposure and Development

The Greystep Card is a guide to find out correct exposure time and process data. As its graduation exactly corresponds **1/2 blindstep** (for N° 4962 and **1/3 blindstep** for N° 4960) you only need to count out the steps to touch the correct value.

Relate mainly on the steps of middle density.

The steps 0.00 and 0.15 log. Dens sometimes becomes a wrong evaluation in its reproduction. Our eyes are differentiating the low densities oversized.

We have a good look in bright light. High densities however we differentiate scarcely.

The steps above 1.20 log. Dens are realized by growing gloss and therefore they could be differentiated only by glossy papers.

This is a result of the **physical limits** of black description on dull materials.

This steps only would be measured correctly by instruments with glosstrap.

They count only conditionally for judgement of a reproduction quality.

For example they allow you to draw conclusions on density range of a given paper, but not on its absolute density values.

Illuminate the testshots of the Greystep Card with great care!

The lighting demands an equal illumination. Lighten the card as far as possible from every four sides or use diffuse light.

The glossy steps above 1.20 log dens should reflect as possible as least of all.

If you aim at colourcast free prints, your light should be neutral too. I.e. you should use normal light with a colour temperature of 5500° Kelvin.

Now by processing step-by-step you approach the correct values for exposure and developing time by achieving a reproduction corresponding to the greystep values.

Note mainly middle density (DN = 0.75) and try to achieve an approximately grey. Colourcasts you eliminate just in the following steps.

Take four partexposures, each with the double time or half a blind.

By comparison with the original card you find out the correct value.

Count the deviation steps and correct the time or blind in the next run.

A difference of two greysteps for the 12step Greystep Card (and three for the 18step one) means a fault of one blindstep (equal to one timestep).

Density range and graduation

By the help of a Greystep Card you grasp easily the grey density range of your shot and print material.

Your working out is quite right, if the graduation is equally preserved and the white and black fields of the reference card mark its extent.

In case of wrong exposures the whole scale shifts to one or another side.

Accordingly the number of steps you change the exposure.

Depending on soft or hard quality of the used material, every 12/18 steps would be shown more or less. And glossy papers even differentiate high densities.

Work out the Greystep Card on different materials.

Use ever low and high sensitive materials, soft and hard ones, dull and glossy papers.

Go through the whole scale, thus the graduation differences would catch your eyes. This way you gain an idea of the effects of the different materials and this experience facilitates you the graduation choice for different shots.

Separation of tones, photographic

On extremely hard materials, e.g. lithfilms, you achieve usually only 3-4 distinguishable steps. By continued reversion you even can reduce its extent to two steps, black and absolutely clear.

Here a Greystep Card is the help to find out on which grey value the copy tips over. This way you decide what should change to black or white.

Approach a development, on which the reduced greystep would be placed nearly DN-step (0.75) of the scale.

Now place the measurement cell of your exposure timer in the projection of the DN-step, and set the meter of paper guide value to mid-zero. Thus you have achieved the correct value for separation of tones.

Now pick any grey value on your halftone picture.

If you now place the measurement cell in these areas and adjust the timer by the separation guide value, the print changes at this grey value.

For photo experiments or working out later on as a print model, you can this way produce grey value extractions of a halftone or even a colour negative by your own.

With the similar technology you can grasp exposure values for correct reproduction of greystep values, for example for contrast changing papers or graphically alienation effects.