



colour theory



Colour filters

Plastic foil in slide mounts; may be inserted in the slide and screen holder on a support (DL300-1E) or the plug-in slide holder (DL300-1F)

Frame dimensions: 50x50 mm
Aperture dimensions: 36x24 mm
DL200-1A Colour filter, red
DL200-2A Colour filter, green
DL200-3A Colour filter, blue
DL200-1B Colour filter, yellow
DL200-2B Colour filter, cyan
DL200-3B Colour filter, magenta
DL200-5B Colour filter, dark green
DL200-4B Colour filter, ruby red



DL200-2T Three-colour slide

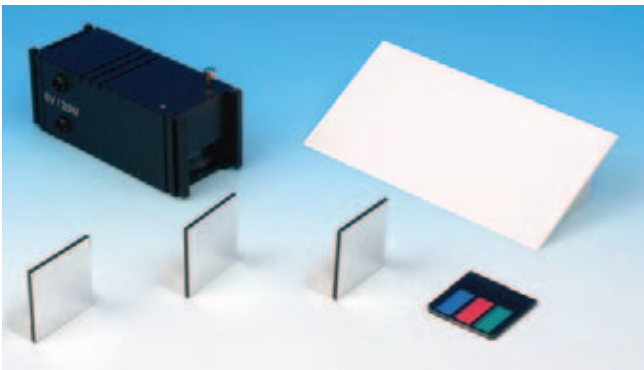
For demonstrating complementary colours as well as the additive mixture of colour to give white; slide with a coloured film for directly projecting the primary colours red, green and blue; may be inserted in the slide and screen holder on a support (DL300-1E) or the plug-in slide holder (DL300-1F)

Frame dimensions: 50x50 mm
Aperture dimensions: 36x24 mm



P5210-3A Colour strip

Used with colour filters DL200-ff in demonstrating pigments; cardboard strip with eight coloured cards 50x50 mm each



Experiment set "Additive colour mixture", magnetic, consisting of:

DL100-1XL Lamp for magnetic panel, xenon, connectors at left

Light bulb: xenon 6 V/20 W
Dimensions: 150x60x60 mm

DL980-1D Three-colour filter, additive

Slide with plastic filter in the colours red, blue and green

DL930-1K Projection wedge, magnetic

Inclined plane for doing projections on a magnetic panel; matte white, magnetic

DL941-1A Mirrors, demo, magnetic, set of 3



Experiment: Additive mixture of colours

DL203-1S Colour filter discs, subtractive, set of 3

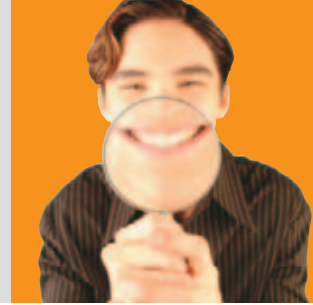
For illustrating the principle of four-colour printing (i.e. printing presses and colour copying machines); one of the additive primary colours appears when two of the filter discs are overlapped; three plastic discs coated in yellow, magenta (purple) and cyan (green-blue)
Diameter: 195 mm each



DL510-4D Transparencies for four-colour printing, set

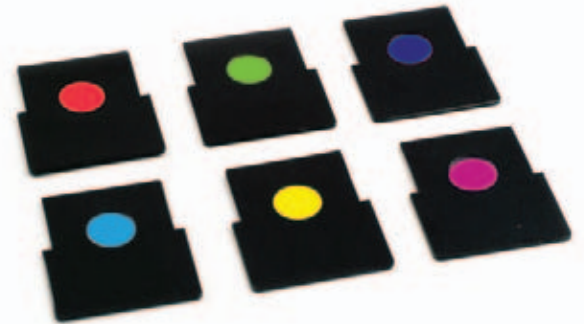
Set of four overhead projector transparencies in the colours yellow, cyan, magenta and black; the principle of four-colour printing (i.e. printing presses and colour copying machines) may be demonstrated by overlapping transparencies; includes a durable, acrylic base plate with metal tongues for holding the four transparencies
Transparency dimensions: 30x20 cm; base plate: 30x28 cm





DL202-1F Projection lamps for mixing colours, set

Three separate light sources with a high illumination density mounted on supports (D=10 mm); for demonstrating additive and subtractive mixture of colours; complete with 12 V/50 W halogen reflector lamps and mounted cooling fans; adjustable lenses for focusing the projected colour image at distances of approx. 0.7 to 2.5 m; including slots for inserting up to three colour filters DL201-ff



DL201-1A Colour filters, additive, "demo", set

High-quality, glass broadband filters in blue, green and red featuring a high degree of transmission for the respective colour; filters mounted in a special frame for insertion in projection lamps DL202-1F

Filter dimensions:

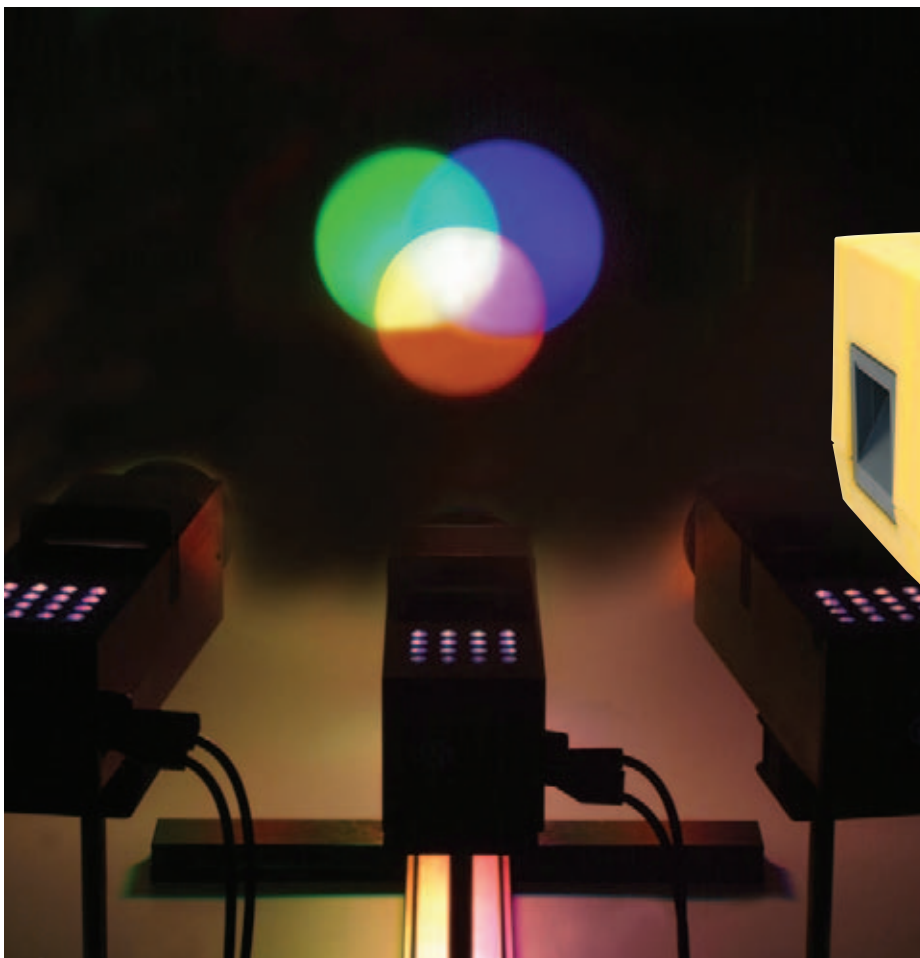
Diameter: 25 mm; width: 2 mm

DL201-2B Colour filters, subtractive, "demo", set

High quality glass filters in yellow, cyan and magenta with the passband of each covering the spectral range of two primary colours; a primary colour appears when inserted in the projection lamp in pairs; filters mounted in a special frame for insertion in projection lamps DL202-1F

Filter dimensions:

Diameter: 25 mm; width: 2 mm



Experiment: Additive mixture of colours - use of projection lamps DL202-1F



P5919-1A Halogen lamp transformer

Special heavy-duty transformer for optics lamps (e.g. DL202-1F)

Output terminals: 2x 12 V AC fixed, 1x 0 ... 12 V AC continuously variable (for the colour blue)

Total max. load: 200 W; galvanic separation from mains source; output voltage taken from 4-mm safety jacks; ABS plastic case with 2 recessed handles

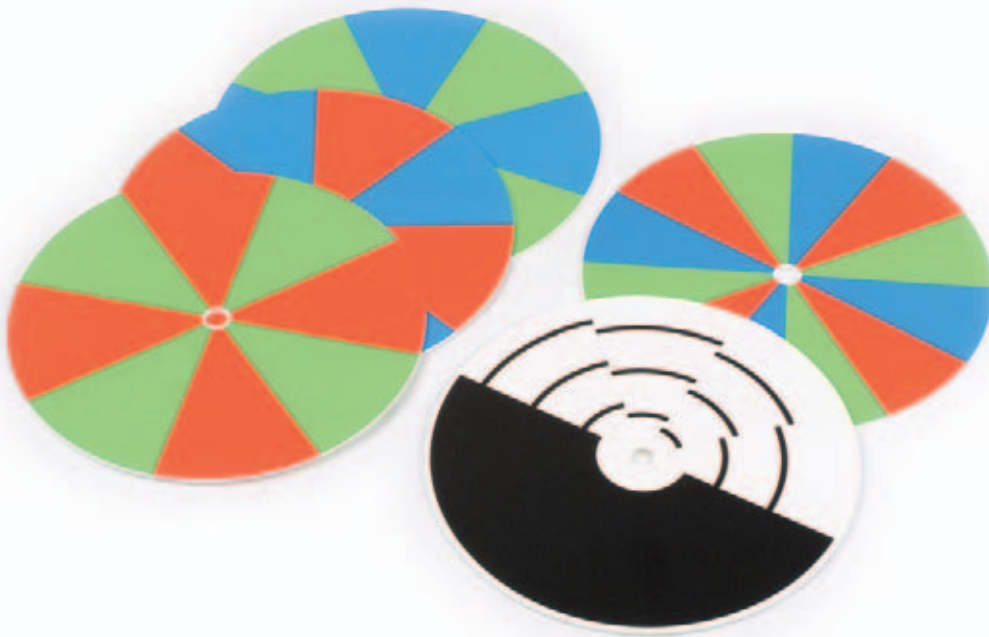
Voltage source: 220 V/50...60 Hz

Dimensions: 260x150x210 mm

Weight: approx. 4.4 kg



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DL510-3F Colour filters, additive, set

Set of four colour discs for demonstrating the additive mixture of primary colours by rotation; plastic discs printed with the colours blue-red, red-green, green-blue and red-green-blue; mounted using disc spindle DW220-1H

Disc diameter: 190 mm

Centre hole: 10 mm

DL510-SW Benham's disc

Colour perception results from the brain further processing signals received from the eye; colour signals are differentiated from black and white signals on the basis of a differing sequence of impulses; the illusion of colour lines is generated when, by rotating the disc, the black and white lines alternate quickly with each other

Disc diameter: 190 mm

Centre hole: 10 mm

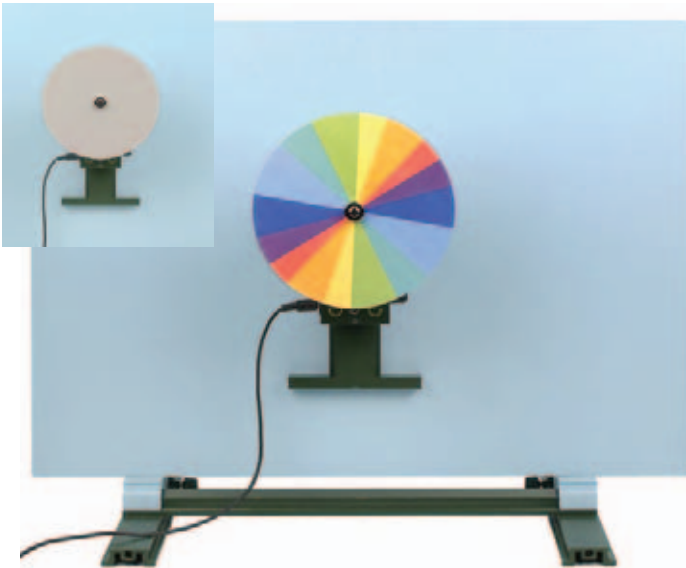
Additive mixture of colours in „compact-system“ see page 247



Series of experiments: Mixture of two additive primary colours by rotation, and the results in each case



Experiment: Using the red-green-blue colour disk to mix colours, and the result



Experiment: Additive mixture of colours - magnetic panel assembly (Use of the colour disc with drive motor DS403-2S and magnetic h-shaped base DS102-1H)



DL510-1F Colour disc

For demonstrating additive colour mixture; plastic disc printed with sectors in various colours and including a centre hole for mounting it on disc spindle DW220-1H
Disc diameter: 200 mm; centre hole: 10 mm

DW220-1H Disc spindle

For mounting discs with a centre hole (minimum of 10 mm in diameter); metal spindle including small pulley with grooved edge and a fastening screw
Support: D=10 mm, max. span width = 8 mm



DL613-1S Magic mirror

A fascinating three-dimensional virtual image appears when an object is placed in the two concave plastic mirrors lying on top of each other
Mirror diameter: approx. 22.8 cm



Examples for use: The colour disc can be mounted on a support stand and driven by a motor or powered by hand (For details on the "momentum apparatus" see pages 109 and 110)



DL615-1K Optical illusion cards

Set of over 50 "playing cards" spectacularly demonstrating optical illusions; each card includes a brief explanation of the particular illusion (in English)