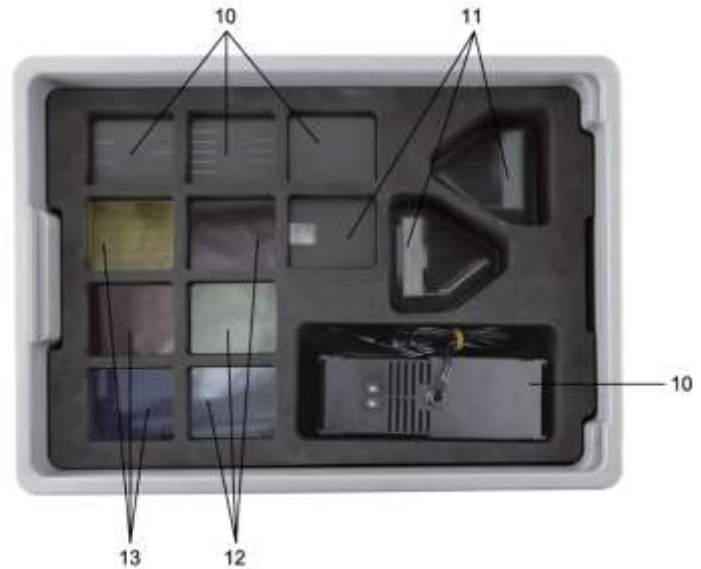
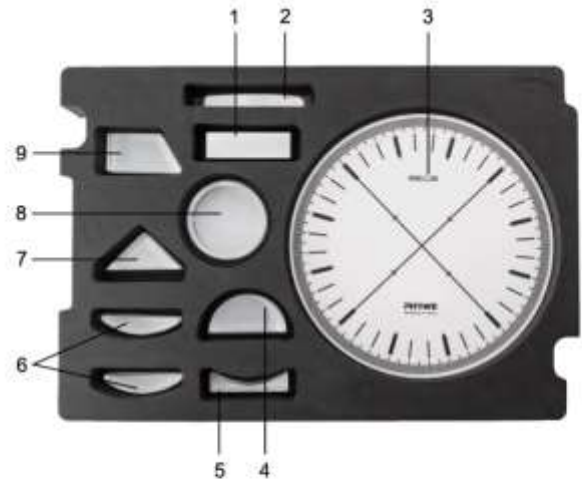


### TESS advanced Physics set Optics 1

- 1 Mirror on block
- 2 Mirror, concave-convex
- 3 Optical disk
- 4 Block, semicircular
- 5 Block, planconcave lens,  $f = -100$  mm
- 6 Block, planconvex lens,  $f = +100$  mm
- 7 Block, rectangular triangle
- 8 Cuvette, double semicircular
- 9 Block, trapezoidal
- 10 Light box, halogen, 12 V/20 W

### TESS advanced Physics set Optics Color mixing, supplement

- 11 Light box accessories for colour mixing
- 12 Color filter set, for additive color mixing
- 13 Color filter set, for subtractive color mixing



This kit is used to perform many optical experiments, including:

Optical illusions, Rectilinear propagation of light, Transparent and opaque objects, Shadows (umbra and penumbra), Solar and lunar eclipses (with the light box), Reflection of light, Reflection by a plane mirror, Images in a plane mirror, Reflection by a concave mirror, Image construction for a concave mirror, Reflection by a convex mirror, Image construction for a convex mirror, Refraction at the air-glass boundary, Determining the refractive index of glass, Refraction at the air-water boundary, Refraction at the boundary between two liquids, Refraction at the glass-air boundary, Total reflection and the critical angle, Passage of light through a planoparallel plate, Refraction at a prism, Deviating prisms, Reversing prisms, Light path and focal length of a convex lens, Image construction for a convex lens, Light path and focal length of a concave lens, Image construction for a concave lens, Light path of lens combinations, Focal length of lens combinations, Spherical aberration, Chromatic aberration, Colour dispersion with a prism, Reunification of spectral colours, Complementary colours, Additive colour mixing, Subtractive colour mixing, Colours of objects, Mode of operation of the human eye (normal vision), Short-sightedness and its correction, Long-sightedness and its correction, and Defective accommodation in old age and its correction

## TESS advanced Physics set Optics 1, geometric optics

- 1 Optical Block, prism, right-angle
- 2 Optical Block, rectangular
- 3 Optical Block, biconcave,  $f = -100$  mm
- 4 Optical Block, biconvex,  $f = +100$  mm
- 5 Mirror, flat, chromed
- 6 Optical Block, plano-convex,  $f = +50$  mm
- 7 Mirror, concave-convex
- 8 Cuvette, double semicircular
- 9 Experimental lamp Laser / LED
- 10 Power supply 5 V / 2 A
- 11 Optical disk (without Fig.)

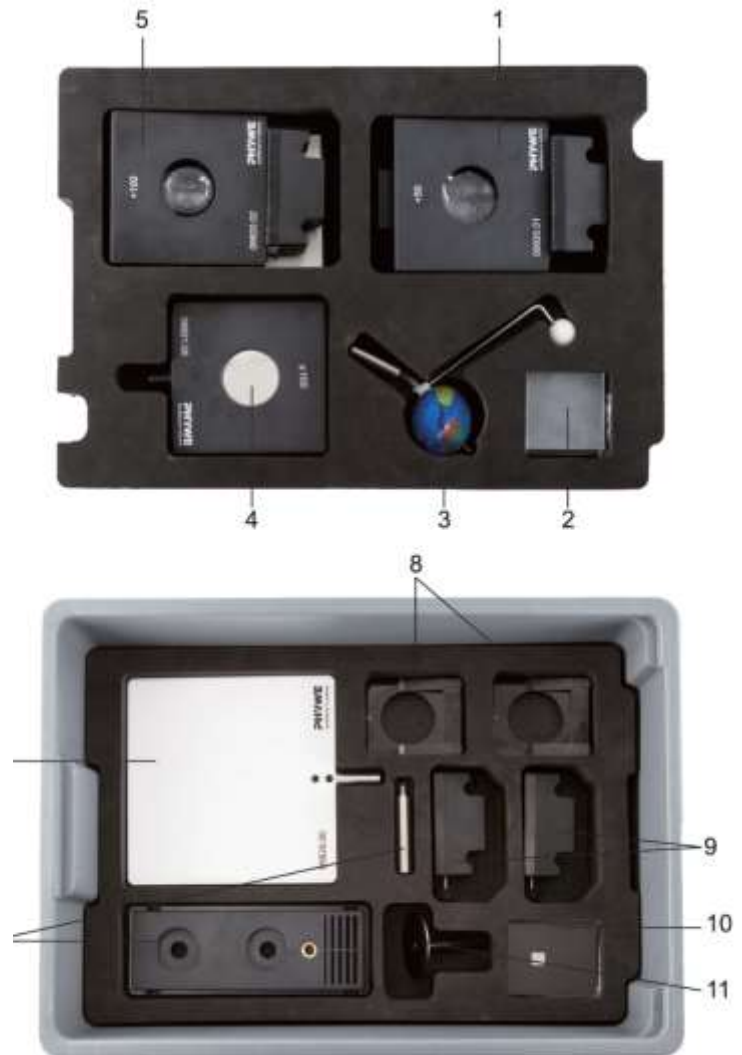


This kit is used to perform many optical experiments, including:

Rectilinear propagation of light, Transparent and opaque objects, Shadows (umbra and penumbra), Solar and lunar eclipses (with the light box), Reflection of light, Reflection by a plane mirror, Images in a plane mirror, Reflection by a concave mirror, Image construction for a concave mirror, Reflection by a convex mirror, Image construction for a convex mirror, Refraction at the air-glass boundary, Determining the refractive index of glass, Refraction at the air-water boundary, Refraction at the boundary between two liquids, Refraction at the glass-air boundary, Total reflection and the critical angle, Passage of light through a planoparallel plate, Refraction at a prism, Deviating prisms, Reversing prisms, Light path and focal length of a convex lens, Image construction for a convex lens, Light path and focal length of a concave lens, Image construction for a concave lens, Light path of lens combinations, Focal length of lens combinations, Spherical aberration, Chromatic aberration, Mode of operation of the human eye (normal vision), Short-sightedness and its correction, Long-sightedness and its correction, Defective accommodation in old age and its correction

## TESS advanced Physics OE-2 supplementary set Optics 2

- 1 Lens on slide mount,  $f = -50$  mm  
Mount with scale on slide mount
- 2 Ground glass screen, 50 x 50 x 2 mm  
Polarising filter, 50 mm x 50 mm  
Grating, 80 lines/mm  
Object –L–, glass bead  
Slide –Emperor Maximilian–
- 3 Model earth/moon
- 4 Concave/convex mirror with rod
- 5 Lens on slide mount,  $f = +50$  mm  
Lens on slide mount,  $f = +100$  mm
- 6 Bottom with stem for light box
- 7 Screen, white, 150 x 150 mm
- 8 Diaphragm holder, attachable
- 9 Slide mount for optical bench
- 10 Diaphragms,  $d = 1, 2, 3, 5$  mm  
Diaphragm with hole,  $d = 20$  mm  
Diaphragm with slit,  $d = 1$  mm  
Diaphragm with square 10 mm x 10 mm
- 11 Table with stem

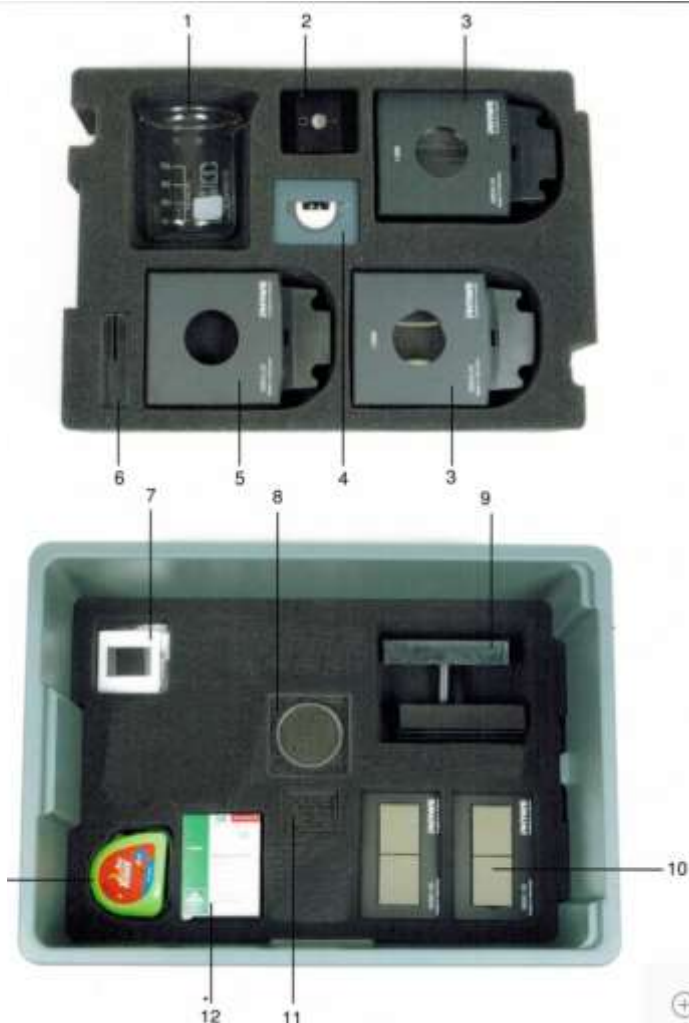


This kit is used to perform many optical experiments, including:

Day and night, The seasons, The phases of the moon, Solar and lunar eclipses (with the earth-moon model), The pinhole camera, Luminous intensity (photometer), Illuminance (inverse square law), Projected image with a concave mirror, Law of imagery for a concave mirror, Determining the magnification of a concave mirror, Images in a convex mirror, Image obtained with a convex lens, Determining the focal length of a convex lens, Law of imagery for a convex lens, Determining the magnification of a concave lens, Image obtained with a concave lens, Pincushion and barrel distortion, The magnifying glass, The structure of a microscope, Determining the magnification of a microscope, The astronomical telescope, The Galilean telescope, Determining the magnification of a telescope, The camera, The depth of focus of a camera, The slide projector, Diffraction at a grid, Determination of the wavelength by grid diffraction, Polarisation with filters, Rotation of the polarisation plane with a sugar solution

## TESS advanced Physics supplementary set Optics 3, OE-3

- 1 Glass beaker, short, 250 ml
- 2 Slit, adjustable up to 1 mm
- 3 Lens on slide mount,  $f = +300$  mm
- 4 Measuring magnifier
- 5 Mount with scale on slide mount
- 6 Photoelastic model
- 7 Aperture,  $d = 0.4$  mm
- Diaphragm, single slit, edge
- Diaphragm, 3 single slits
- Diaphragm, 4 double slits
- Diffraction grating, 4 lines/mm
- Diffraction grating, 8 lines/mm
- Diffraction grating, 10 lines/mm
- Diaphragm, 4 multiple slits
- 9 Plate mount for 3 objects
- 12 Microscopic slides, 76 mm x 26 mm, 50 pieces
- 13 Measuring tape,  $l = 2$  m



This kit is used to perform many optical experiments, including:

Diffraction and interference at a double slit, Interference of light at a double slit, Interference of light at multiple slits, Interference at a diffraction grating, Diffraction at a single slit, Diffraction at a single slit with variable slit width, Diffraction at a square aperture, Polarisation of light through filters, Polarisation by reflection, Polarisation by scattering, Double refraction (Birefringence), Optical activity of materials, Verification of Malus's Law, and Determination of Brewster's Angle