

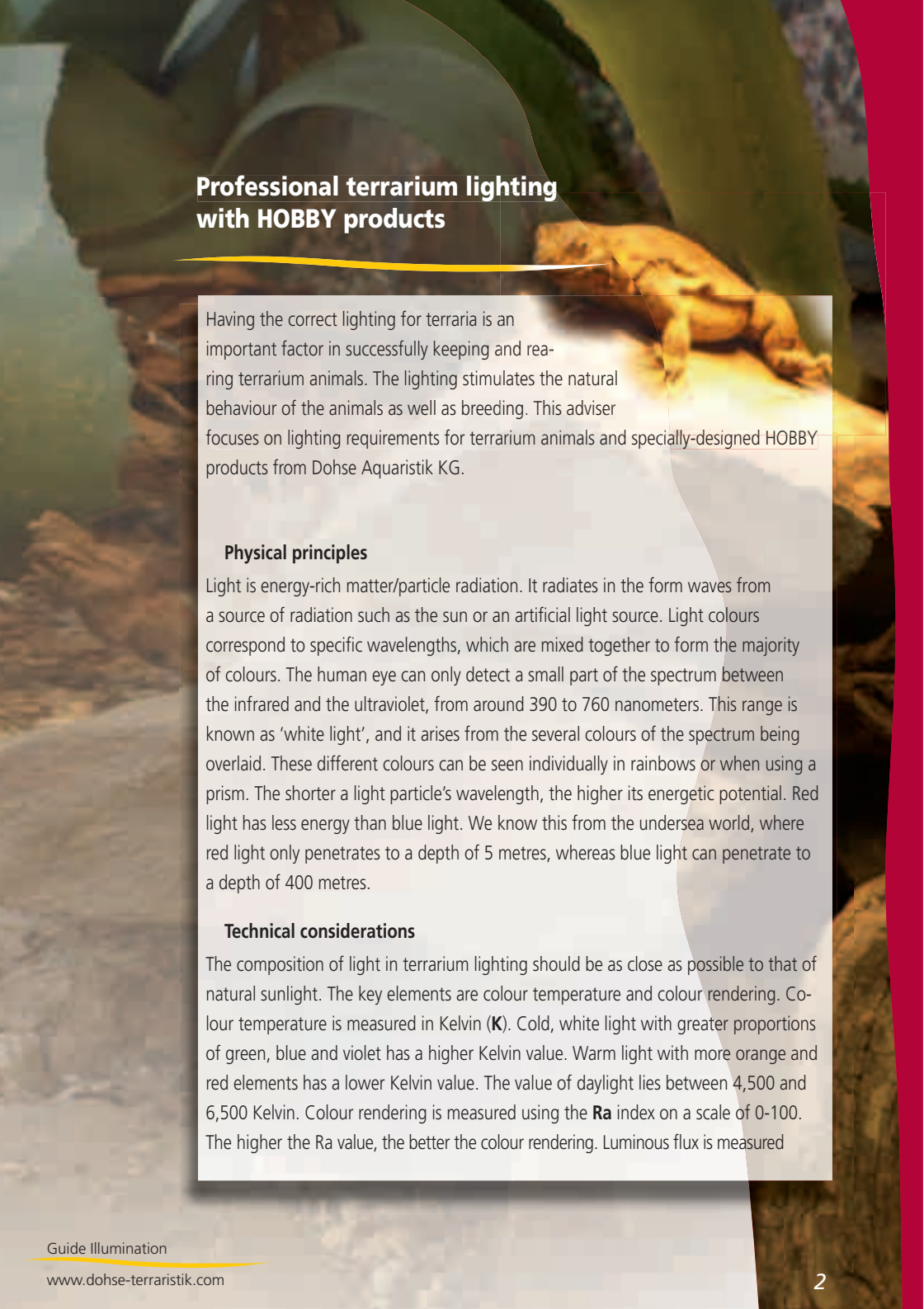


H  **BBY**®

Guide
illumination
in the terrarium

www.dohse-terrarium.com





Professional terrarium lighting with HOBBY products

Having the correct lighting for terraria is an important factor in successfully keeping and rearing terrarium animals. The lighting stimulates the natural behaviour of the animals as well as breeding. This adviser focuses on lighting requirements for terrarium animals and specially-designed HOBBY products from Dohse Aquaristik KG.

Physical principles

Light is energy-rich matter/particle radiation. It radiates in the form waves from a source of radiation such as the sun or an artificial light source. Light colours correspond to specific wavelengths, which are mixed together to form the majority of colours. The human eye can only detect a small part of the spectrum between the infrared and the ultraviolet, from around 390 to 760 nanometers. This range is known as 'white light', and it arises from the several colours of the spectrum being overlaid. These different colours can be seen individually in rainbows or when using a prism. The shorter a light particle's wavelength, the higher its energetic potential. Red light has less energy than blue light. We know this from the undersea world, where red light only penetrates to a depth of 5 metres, whereas blue light can penetrate to a depth of 400 metres.

Technical considerations

The composition of light in terrarium lighting should be as close as possible to that of natural sunlight. The key elements are colour temperature and colour rendering. Colour temperature is measured in Kelvin (**K**). Cold, white light with greater proportions of green, blue and violet has a higher Kelvin value. Warm light with more orange and red elements has a lower Kelvin value. The value of daylight lies between 4,500 and 6,500 Kelvin. Colour rendering is measured using the **Ra** index on a scale of 0-100. The higher the Ra value, the better the colour rendering. Luminous flux is measured

in Lumens (**lm**). This information is important for calculating the Lux (lighting strength, = luminous flux/m²) and light yield in lumens per watt.

Background lighting

Lighting for twelve to fourteen hours a day is considered sufficient for the majority of terrarium animals. However, the lighting used needs to reflect not only the rhythm of day and night, but also the rhythm of summer and winter. Animals from the Tropics receive daylight for a constant 12 hours per day in the wild. Animals from our latitudes on the other hand have eight to nine hours of light in winter and 16 to 17 hours in summer.

Fluorescent lamps

Fluorescent lamps are the most widely used for background lighting in terraria. These are available in tube form, as so-called T8 tubes with a diameter of 26 mm and T5 tubes with a diameter of 16 mm. This method of lighting has a good light yield, a long lifespan and low energy consumption. In fluorescent lamps, UV light is turned into visible light by phosphors contained within the body of the lamp. Light yield and especially the spectrum being radiated can only be determined from the type and composition of the phosphors. Each HOBBY fluorescent tube pack contains a starter that can be used for starting single tubes. When replacing a light, the starter should be replaced at the same time, to ensure the lamp has the longest possible lifespan. Fluorescent tubes have a much shorter lifespan if standard starters are used, because starting from cold creates heavy wastage caused by multiple sparking and flickering.

By using electronic ballast, HOBBY fluorescent tubes have a lifespan of up to 15,000 hours. In terms of the average lifespan for terrarium lighting, this equates to operation for up to three years. Loss of lighting power and changes in the light spectrum are not so noticeable to human eyes, but they are very obvious to animals and plants: therefore regular replacement of the lighting is recommended.

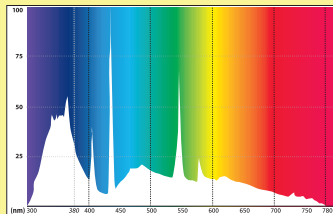


The combination of background lighting using fluorescent tubes and focused illumination with spot or UV emitters (see figure to the right) provides balanced overall lighting within the terrarium.

Reptile-Light Terrarium lamp with UV-B portion

Model	15 W, 45 cm	18 W, 60 cm	30 W, 90 cm	36 W, 120 cm	38 W, 105 cm
Item no.	37400	37402	37406	37408	37410
Colour temperature	7,000 K	7,000 K	7,000 K	7,000 K	7,000 K
Luminous flux	500 lm	600 lm	1,100 lm	1,400 lm	1,350 lm
Colour rendition	92 Ra	92 Ra	92 Ra	92 Ra	92 Ra

Light spectrum



High pressure mercury vapour lamps

Pear-shaped high pressure mercury vapour lamps are mainly used for background lighting in terraria with a height in excess of 80cm. They give off bright, white light and have a high light yield. In contrast with fluorescent lights, high pressure mercury vapour lamps give off a lot of heat. Hence they are used in a ceramic mount and need to be at a greater distance from the animals being looked after. HOBBY HQ-Lamps are available in 80 and 125 watts. They can only be used with special ballast.



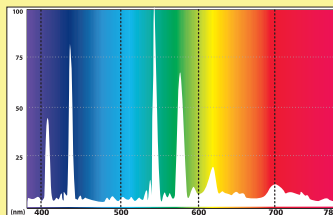
HOBBY HQ-Lamps can also be used in 60 cm high desert terraria for species that need a lot of light and warmth, such spiny-tailed dragons.



HQ-Lamp High pressure mercury vapour lamps

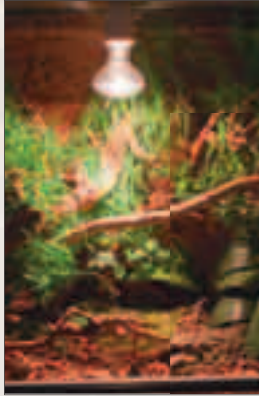
Model	80 W	125 W
Item no.	37300	37305
Colour temperature	6,399 K	6,230 K
Luminous flux	2,640 lm	5,800 lm
Colour rendition	13.8 Ra	14.4 Ra

Light spectrum



Sunlight reflector spotlights

HOBBY Sunlight can be used as background lighting for all types of terraria. It uses a full colour spectrum to imitate natural sunlight and encourages natural behaviour in terrarium animals. The light output is enhanced with an internal mirror in the glass reflector. Quartz glass is used to ensure that a minimal amount of UV-B is emitted. This is excellent for encouraging vitamin D₃ production and for prophylaxis of rachitic diseases



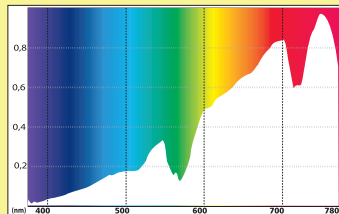
Animals exposed to HOBBY Sunlight exhibit a more agile behaviour in the terrarium.



Sunlight Sunlight reflector spotlights

Model	50 W	75 W	100 W	125 Wm
Item no.	37340	37342	37344	37346
Colour temperature	2,606 K	2,709 K	2,689 K	2,661 K
Luminous flux	262.5 lm	439.8 lm	610.9 lm	747.8 lm
Colour rendition	79.1 Ra	79.2 Ra	82 Ra	78 Ra

Light spectrum



Spotlights



Spotlights are used to enhance background lighting and to create so-called 'pools of sunlight'. If several reptiles are kept in one terrarium, each animal should have its own area for basking and regulating its body temperature. The HOBBY Neodymium-Basking Spot Daylight has an opaque radiation surface to create a wide light radiation cone with soft light diffusion. Increasing the red elements enhances colours and encourages plant growth. This method of lighting is designed for basking and temperature regulation and is ideal for installing in high, planted forest and rainforest terraria.

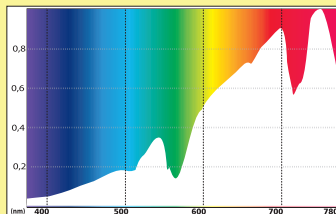
HOBBY Neodymium Basking Spot lamps suffuse the terrarium with a pleasant, colour-intensifying light.

Neodymium-Basking Spot Daylight

Wide-spectrum Daylight Lamp

Model	40 W	60 W	80 W	100 W	150 W
Item no.	37350	37352	37354	37356	37358
Colour temperature	2,540 K	2,644 K	2,767 K	2,777 K	2,652 K
Luminous flux	158.6 lm	293.9 lm	481.4 lm	595.7 lm	931.5 lm
Colour rendition	75.8 Ra	82.9 Ra	82.2 Ra	78.1 Ra	77.2 Ra

Light spectrum



The HOBBY Thermo Basking Spotlight uses a restricted light radiation cone to deliver 35 % more light and heat and radiates warm light to create sunny areas for heat regulation. This method of lighting increases the ambient temperature and is ideal for desert animals and heat loving tropical animals.

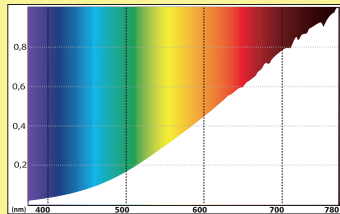


The light and warmth of the HOBBY Thermo Basking Spotlight are sought out by reptiles specifically for thermoregulation.

Thermo Basking Spotlight Heat Spotlight

Model	40 W	60 W	80 W	100 W
Item no.	37360	37362	37364	37366
Colour temperature	2,520 K	2,646 K	2,658 K	2,680 K
Luminous flux	242.2 lm	440.7 lm	668.9 lm	900 lm
Colour rendition	99.7 Ra	99.6 Ra	99,5 Ra	99.4 Ra

Light spectrum



Halogen lamps produce up to 15 % more light and have a lifespan twice as long as standard lamps. The HOBBY Diamond Halogen Floodlight has a 38° wide angle of radiation and increases the ambient temperature more than standard lamps with the same wattage. The HOBBY Diamond Halogen Spotlight has a narrow 12° angle of radiation that concentrates the light and heat radiation that reptiles specifically seek for heat regulation.



Halogen lamps provide warm zones, favoured by many species.

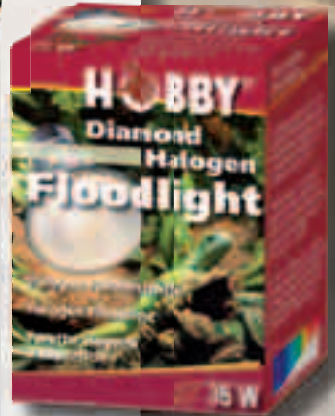
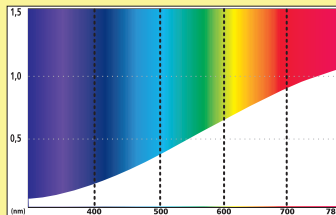


Diamond Halogen Floodlight

Halogen Floodlight

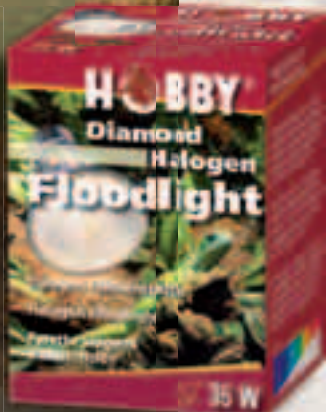
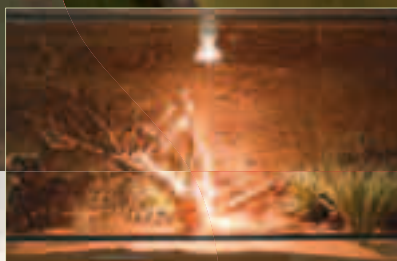
Model	35 W	50 W	75 W	100 W
Item no.	37385	37386	37387	37388
Colour temperature	2,800 K	2,664 K	2,778 K	2,848 K
Luminous flux	150 lm	309 lm	608 lm	1,253 lm
Colour rendition	95.5 Ra	99.8 Ra	99.8 Ra	99.8 Ra

Light spectrum



38°

Only halogen spot emitters with a low wattage or wattage appropriate for the respective distance should be used in a terrarium with plants, and they should not be pointed at the plants.



Diamond Halogen Spotlight

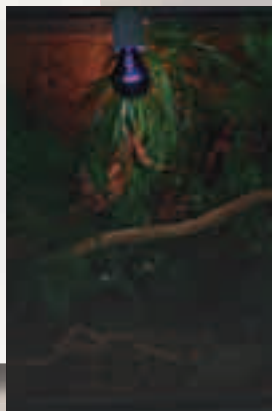
Halogen Spotlight

Model	35 W	50 W	75 W	100 W
Item no.	37390	37391	37392	37393
Colour temperature	2.800 K	2.627 K	2.819 K	2.911 K
Luminous flux	150 lm	292 lm	685 lm	1.410 lm
Colour rendition	95,5 Ra	99,8 Ra	99,8 Ra	99,8 Ra
Light spectrum				

Moonlight simulation

Moonlight lamps simulate natural moonlight and are ideal for keeping nocturnal terrarium animals and observing them. The minimal heat radiation makes these lamps especially relevant for keeping amphibians. It encourages reptile breeding behaviour. HOBBY Moonlight is available in four wattages.

25 and 40 watt strengths have narrow light beams and can also be mounted horizontally in low terraria.





Moonlight Moonlight Lamp

Model	25 W	40 W	60 W	75 W
Item no.	37370	37372	37374	37376
Colour temperature	3.000 K	3.000 K	3.000 K	3.000 K
Luminous flux	2,4 lm	2,4 lm	2,4 lm	2,4 lm
Colour rendition	45,4 Ra	45,4 Ra	45,4 Ra	45,4 Ra

HOBBY Moonlight lamps provide orientation to crepuscular and nocturnal animals and stimulate many species to breed.

Heat radiation

Infrared lamps are designed as 24-hour a day sources of heat, making them ideal for nocturnal terrarium animals that need heat and for encouraging natural behaviour. The emission of a low-energy red light allows the keeper to also observe his animals at night. HOBBY Infrared-Lights have an internal mirror reflector and are available in three wattages.



Infrared-Light Infrared Heat Lamp

Model	50 W	75 W	100 W
Item no.	37380	37382	37384
Colour temperature	1.000 K	1.000 K	1.000 K
Luminous flux	49,9 lm	49,9 lm	49,9 lm
Colour rendition	56,1 Ra	56,1 Ra	56,1 Ra



Lighting accessories

Dohse Aquaristik has developed a great variety of accessory products for terraria - for fitting light sources in the terrarium, controlling these lamps, increasing their efficiency with reflectors or to protect the animals against burns, for example.

Under the name HOBBY MultiReflect, Dohse Aquaristik offers high-quality aluminium reflectors with honeycomb structure for optimal light distribution of fluorescent tubes. The properties of the material and the optimum-angle design provide over 100 % more light in the terrarium. With only three different lengths – used individually or in combination – all common T8 and T5 fluorescent tubes can be covered. The reflectors are supplied preassembled with metal clips for T8 fluorescent tubes. Metal clips are enclosed in the packaging of T5 fluorescent tubes.

MultiReflect Reflector for T8/T5 fluorescent tubes

37494 438 mm

37495 590 mm

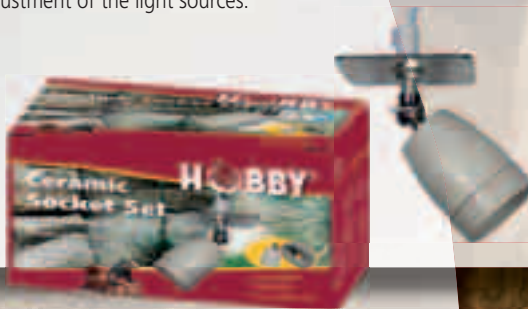
37496 742 mm



The HOBBY Ceramic Socket Set is a ready-to-install complete set for light sources with E27 standard thread. It consists of a ceramic socket, a brass thread, a strain relief as well as a 2 metre long cable with circuit-breaker. A ball joint with fixing screw is also included for flexible adjustment of the light sources.

Ceramic Socket Set

37065



The HOBBY Clamp Lamp is a clamp lamp for light sources and UV emitters with solid aluminum screen and integrated, heat-resistant ceramic socket (up to 300 °C). Thanks to a ball joint that can be pivoted by 360 degrees, the focus of the lighting can be adjusted in vertical and horizontal direction.



Clamp Lamp

37096 Ø 14 cm (lamps up to max. 60 Watt)

37097 Ø 26 cm (lamps up to max. 150 Watt)

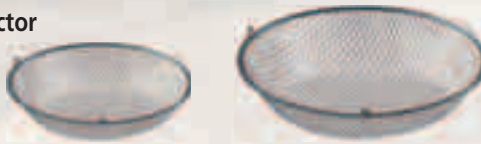


To prevent the terrarium animals coming into contact with hot light sources when Clamp Lamps are installed inside the terrarium, fine-mesh protective grids are used, which are also available as an accessory in two sizes.

Clamp Lamp Protector

37107 Ø 14 cm

37108 Ø 26 cm



To prevent the terrarium animals coming into contact with hot light sources when Clamp Lamps are installed inside the terrarium, fine-mesh protective grids are used, which are also available as an accessory in two sizes.



Lamp Shade S

for lamps up to
max. 60 mm bulb diameter

37110 red

37112 brown

Lamp Shade L

for lamps up to
max. 95 mm bulb diameter

37116 red

37118 brown



For fastening compact lamps or long light sources with E27 standard thread, Dohse Aquaristik has developed a ready-to-install complete set. The HOBBY Compact Lamp Holder consists of a metal holder, a ceramic socket, a strain relief as well as a 2 metre long cable with circuit breaker. The lamps can be mounted both vertically and horizontally. An aluminium reflector with honeycomb structure is fitted to increase the light yield.

Compact Lamp Holder



The HOBBY Reflector Lamp Holder is a ready-to-install complete set for reflector lamps with E27 standard thread. It consists of a metal holder, a ceramic socket, a strain relief as well as a 2 metre long cable with circuit-breaker. A hinged protective grid protects against burns.

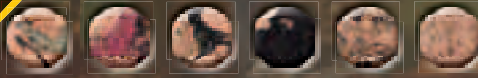
Reflector Lamp Holder



37337 11x11x16 cm
for lamps up to max. 100 W

37338 11x11x16 cm
for lamps up to max. 150 W





Corks Cuts

35140-35157

Self-adhesive cork cuts are available in six different designs to cover Lamp Holders of all sizes. This makes the lamp holders virtually invisible in the terrarium, in particular when the rear panels are covered with cork.

The HOBBY Heat Protector protects terrarium animals against burns. It is recommended for light sources that get very hot as well as heat-emitting infrared emitters up to 150 W. It can be fastened in the perforated metal of the terrarium cover using the brass thread and nuts of the HOBBY ceramic socket connection set (37064).



37068 Mini, 12x12x18 cm
37070 15x15x25 cm

Heat Protector

Protective cage against burns

The HOBBY TerraTimer pro timer switch is suitable for controlling background, spot, heat, UV and moonlight lighting. It enables up to 9 switch-on / switch-off times per day and can be programmed for specific days, working days only or only on weekends as well as in blocks of days.



36155

TerraTimer pro

Timer Switch with Seconds Function

The HOBBY Lighting Dimmer is a mains socket lighting dimmer for continuously adjustable brightness control. Light bulbs between 20 and 300 watts as well as low-voltage lamps with a conventional transformer between 20 and 150 watts can be dimmed.



36152 approx. 9x6x8 cm

Lighting Dimmer

Mains Socket Lighting Dimmer



A trademark of Dohse Aquaristik

Dohse Aquaristik GmbH & Co. KG

Otto-Hahn-Str. 9

D-53501 Gelsdorf

Tel.: 0049-(0)2225-9415-0

Fax: 0049-(0)2225-946494

info@dohse-aquaristik.de

www.dohse-terrarium.com

Überreicht durch:

Technical alteration reserved. Technical sizes are meant to be approximate sizes rather than assured characteristics. Due to the printing process, the product and packaging illustrations may vary from the originals. Changes, printing and other errors and omissions excepted.

Stand 05/2012 • Item no.: 73028