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Lighting, Lamps, Tube Lamps  
Curing UV Adhesives

# Curing





Bohle offers a comprehensive portfolio of UVA lamps for curing UV adhesives. The working lamp length should meet or exceed the length of the joint for bonding. In this way, extreme tensions within the bonding joint are avoided which might lead to the failure of the bond. The lamps are especially suitable for metal bonds and short bonding distances. For longer bonding distances, tube lamps of an appropriate size should be used to minimise tensions. All Bohle UVA lamps are equipped with special filter screens.



# At a glance

Glass / Glass Edge Bonding				
	Verifix UVA-Star 500	Verifix UVA-Star 1100	Verifix UVA-Star 1410	UVA Hand Lamp H9
Length	500 mm	1110 mm	1410 mm	110 mm
Bonds up to ø 12 cm / 7 x 7 cm	✓	✓	✓	✓
Bonds up to ø 25 cm / 25 x 25 cm	✓	✓	✓	
Bonds up to 111 cm		✓	✓	
Bonds up to 141 cm			✓	
Art.-No	BO 5500380	BO 5500385	BO 5500390	BO 5209450

Several tube lamps are laid against each other in an overlapping pattern for bonding edges longer than 141 cm

Glass / Metal Bonding				
	TwinLED	UVA Hand Lamp UVAHAND 250	UVA Hand Lamp UVAHAND 250	UVA Hand Lamp
Bonds up to ø 12 cm / 7 x 7 cm	✓	✓	✓	✓
Bonds up to ø 25 cm / 25 x 25 cm		✓	✓	✓
Low operating costs	✓			
No heat generation	✓			
Programmable	✓			
Light-curing adhesives	✓	✓		✓
UV-curing adhesives	✓	✓	✓	✓
Cable-free	✓			
Art.-No	BO 5500355	BO 5209404	BO 5209415	BO 5500310

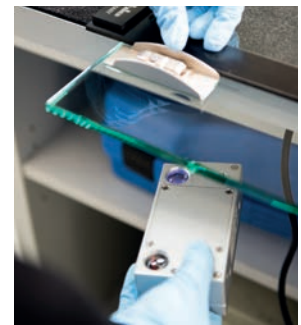
All hand lamps are also suitable for small / short glass / glass bonding.

# Verifix® TwinLED UV LED Lamp

The small and extremely powerful Bohle Verifix TwinLED UV-LED lamp is the new high-tech tool for UV bonding. It's cordless so fits into any bag and can be taken with you to the customer's. The lamp achieves a high innovative, uniform light intensity without getting hot thanks to the LED technology. The adjustable cone of light enables bonding up to a diameter of 120 mm. The long LED service life ensures very low operating costs with an extremely fast return on investment. This powerful device pays for itself!



Art. No.	Description
BO 5500355	Verifix® "Twin LED" UV-LED Lamp
SP BT5559	Spare battery



## Advantages:

- Very high performance
- Short curing times
- Suitable for all Bondingtypes
- Small, light and easy to carry
- Energy-saving and quiet
- Good value for money
- No build-up of heat
- Instantly ready for use, no warming-up phase
- Can be fixed to objects such as a standard camera tripod

# UVA Hand Lamp UVAHAND 250



For use when bonding metal parts and smaller surfaces · integrated operating hours counter · spacers as protection against overheating · integrated cooling fan · special filter screen · For curing UVA and light curing adhesives · with filter screen · ideal for bonding metal parts and smaller surfaces

## Advantages:

- High performance level
- Short curing times
- Can be used to cure large surfaces
- Can process all adhesives
- Operating hour counter

Art. No.	Version · Description · Application:
BO 5209404	230 Volt, 250 Watt · white light
BO 5209415	230 Volt, 250 Watt · black light
BO 5209416	white light · Volt 110 · Hz 60
BO 5209406	Spare H1 filter screen with frame · white light
BO 5209407	Spare fluorescent tube 250 F
BO 5209408	Spare filter screen with frame · black light
BO 5209414	Thermal fuse
BO 5209412	Spare casing · right and left hand side

# The Direct Comparison



## UVA Hand Lamp

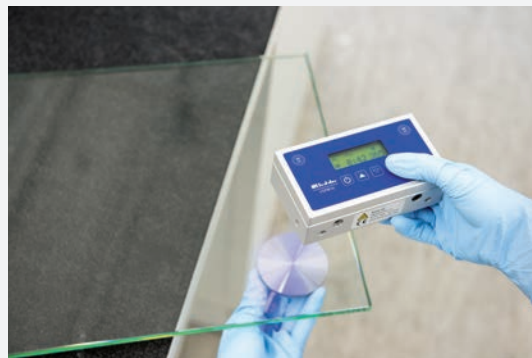


Running time 8 hours / day  
5 days / week  
2080 h / year  
250 W = 0.25 kW

$0.25 \text{ kW} \times 2080 \text{ h} = 520 \text{ kWh}$

An average figure of 30 ct / kWh is used to calculate prices, Operating costs have been calculated for 12 months, during a working time of 40 hours / week.

## Verifix® TwinLED



Loading time 2 hours / day  
5 days / week  
520 h / year  
20 W = 0.02 kW



$0,02 \text{ kW} \times 520 \text{ h} = 10.4 \text{ kWh}$

An average figure of 30 ct / kWh is used to calculate prices, Operating costs have been calculated for 12 months, during a working time of 40 hours / week.

Description	UV-Hand 250W	TwinLED
Product Number	5209404	5500355
Wavelength	Spectrum of 315 - 420 nm	365 nm and 395 nm
Possible UV Adhesives	All UVA and light-curing adhesives	All UVA and light-curing adhesives
UVA Intensity	250 mW/ cm <sup>2</sup>	> 200mW/ cm <sup>2</sup> *
Power consumption	250 W	Battery operated, energy-saving
Dimensions	Lamp approx. 225 x 180 x 120 mm, Handle approx. 140 mm Electronic ballast approx. 115 x 250 x 160 mm	125 x 40 x 70 mm
Weight	Lamp 1.5 kg, electronic ballast 4.0 kg	600 g
Temperature development	Very high temperature development, too much irradiation can damage adhesive or lead to broken glass	Low
Areas of Use	Metal part bonding, surface bonding up to approx $\varnothing$ 25 cm / 25 x 25 cm	Metal part bonding up to $\varnothing$ 120 mm / 70 x 70 mm
Lamp Lifespan	approx. 1000 h	approx. 20000 h
Connection	230V, 50/ 60 Hz, tethered	100 - 240 V, 50/ 60 HZ battery operated

\* Bohle UV meters only measure up to max. 200 mW/ cm<sup>2</sup>, lamp performance cannot be recorded

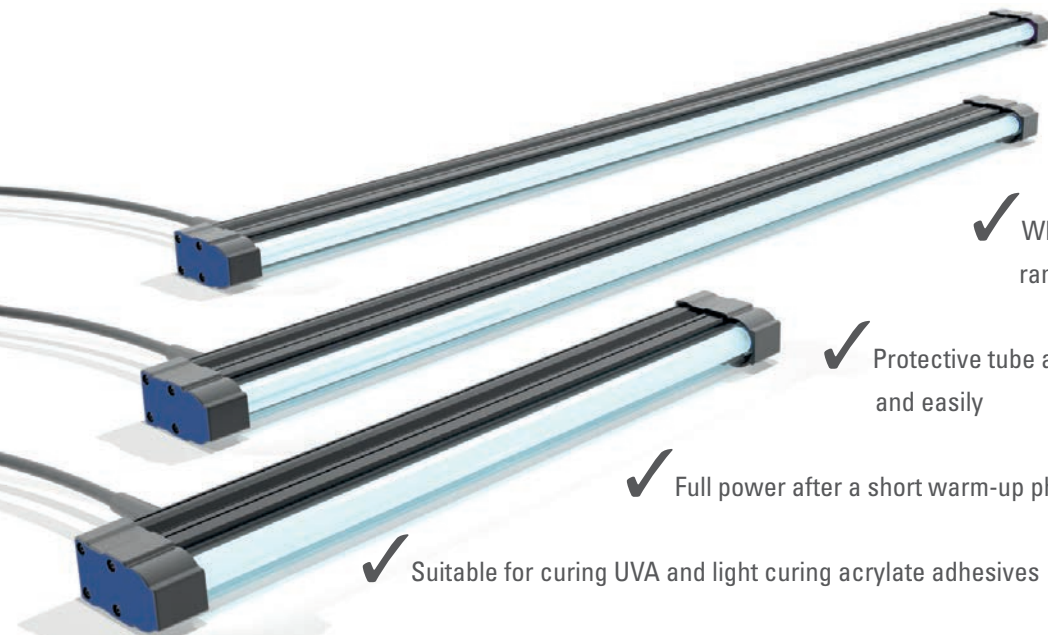
Running time calculation: it can be assumed that bonding is permanent. The 250 W lamp should be left to burn uninterrupted, as frequently switching it on and off will damage the lamp and reduce its lifespan. Moreover, whenever the lamp is switched off, it must be allowed to cool before it can be switched back on again.

The TwinLED must only be switched on when required, i.e. for the actual curing process, and can therefore be switched off afterwards. Theoretically, with an average curing time of 2 minutes per bond, 60 bonds could be made with a battery charge.

If we were to suppose that a complete bonding process would last 10 minutes, the user could create 48 bonds in a day. This would mean that an entire battery charge would still not be consumed. However, for the sake of simplicity, the calculation here has been made with a battery charge.

# Verifix® UVA-Star Tube Lamps

The new Verifix® UVA-Star tube lamps feature state-of-the-art technology in a new design. The lamps with the T8 tubes require less power than their predecessors despite the higher UVA performance and only need five minutes to warm up. The high-quality transformer is even more efficient and even easier to use because it has been integrated into the lamp housing for the first time. Longer bonded edges are also not a problem: placing several tubes together also enables the stress-free curing of bonded edges measuring in excess of 1410 mm. The lamp for longer adhesive edges!



- ✓ All lengths available in 230 volts\*
- ✓ White light lamp within a wavelength range of 315 - 400 nm
- ✓ Protective tube and lamp can be replaced quickly and easily
- ✓ Full power after a short warm-up phase of just 5 minutes
- ✓ Suitable for curing UVA and light curing acrylate adhesives
- ✓ Particularly recommended for the stress-free curing of longer adhesive edges in glass-glass bonding

\* 120 V versions of all lamps are available outside the EU.

Art. No.	Version
BO 5500380	Verifix® UVA-Star 500, 230 volts, 18 watts, working length 500 mm
BO 5500382	Spare lamp for Verifix® UVA-Star 500
BO 5500383	Acrylic protective tube for Verifix® UVA-Star 500
BO 5500385	Verifix® UVA-Star 1110, 230 volts, 36 watts, working length 1110 mm
BO 5500387	Spare lamp for Verifix® UVA-Star 1110
BO 5500388	Acrylic protective tube for Verifix® UVA-Star 1110
BO 5500390	Verifix® UVA-Star 1410, 230 volts, 58 watts, working length 1410 mm
BO 5500392	Spare lamp for Verifix® UVA-Star 1410
BO 5500393	Acrylic protective tube for Verifix® UVA-Star 1410
BO 5500399	End Cap for Verifix UVA-Star 500, 1110 and 1410



## ▶ UVA Hand Lamp

For curing UVA and light curing adhesives · with filter screen · ideal for bonding metal parts and smaller surfaces



**i** Version 230 volts · 100 watts

Art. No.	Version
BO 5500310	UVA Hand Lamp
BO 5500311	Spare fluorescent tube UV 150 F
BO 5500312	Spare H1 filter screen

## ▶ UVA Hand Lamp H9

Double fluorescent tube (white light) · with mirror reflector and transformer in mains plug · short curing times due to short distances to the bonding joint (depends on adhesive layer thickness and the UVA transmittance of the bonding parts) · even and tension-free light exposure · outstanding price-performance ratio



**i** Work length 110 mm · Version 230 V / 50 Hz · Output 9 W

Art. No.	Description
BO 5209450	UVA Hand Lamp
BO 5209451	Spare fluorescent tube

# Accessories

## ▶ UVA Measuring Device

For measuring the intensity of UVA tube and hand lamps · suitable for UVA and UVB range · For testing the UVA transmittance of glass.



Art. No.	Measuring range
BO 5500300	0 - 200 mW/cm <sup>2</sup>

### Please note:

Ensure stable process reliability by regularly checking your UVA lamps!

## ▶ Protective Glasses Premium

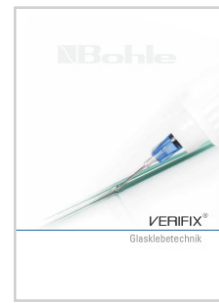
UV protective glasses according to EN 170 + 172 · grey viewing glasses, scratch-resistant and anti-fog (special anti-fog coating) · adjustable arms · supplied with holding strap



Art. No.	Description
BO 5007613	Protective Glasses

## Further Information

You can find further information (diagrams etc.) in our glass bonding technology catalogue.



## The complete programme of products

can be found in our online shop, along with diagrams, operating instructions etc., at [www.bohle-group.com](http://www.bohle-group.com).



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