

# Bluephase® Style

The curing light



**Very small  
cures all**

Efficient  
Esthetics

ivoclar  
vivadent®

# Reliable curing, short exposures

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The innovative Bluephase® Style is designed for the intraoral polymerization of light-curing dental materials.

The Bluephase® curing lights are not only the best-selling LED polymerization lights in Europe<sup>1</sup>, but they are also used in numerous clinical studies. Your advantages:

**Reliable curing performance** for direct and indirect restorations

**Short curing times** starting from 5 seconds due to high light intensities<sup>2</sup>

**Suitable for every light-curing material** due to polywave LED

**Wide 10-mm light guide** for time-saving single-exposure curing procedures

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1,200 mW/cm<sup>2</sup>



See here for the features that lend uniqueness and high quality to every Bluephase:  
[www.ivoclarvivadent.com/bluephase\\_en](http://www.ivoclarvivadent.com/bluephase_en)





Simple  
two-button operation

Contactless battery charging

Ergonomically designed to fit  
comfortably in every hand

**5**-seconds curing times<sup>[1]</sup>

**3-year warranty<sup>[2]</sup>**

[1] only in conjunction with the Bluephase Style 20i  
[2] warranty on battery: 1 year



# Esthetics are impossible without proper light curing

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The evolution of esthetic tooth-coloured composite resin fillings and indirect ceramic restorations would have been impossible without the development of suitable light-curing devices.

Polymerization is considered to be the most common source of error when processing light-curing materials. Inadequate polymerization can lead to suboptimal outcomes as well as postoperative sensitivity and discolouration.

The curing lights of the Bluephase family can mitigate these risks.



## Efficient Esthetics

Products that are optimally coordinated for direct restorative procedures enhance the efficiency with which high-quality esthetic restorations can be achieved.



### 1 Isolate

Effective isolation with **OptraGate®** and **OptraDam**



### 2 Bond

Direct intraoral application of **Adhese® Universal** with the efficient VivaPen®



### 3 Restore

**Tetric®** – One solution for all cavities



### 4 Contour

Time-saving contouring with **OptraSculpt®** due to its anti-stick effect



### Cure

Reliable and fast curing with the **Bluephase®** curing units



### 6 Polish

High-gloss polishing in only one step with **OptraGloss®**



### 7 Protect

Immediate and controlled fluoridation with **Fluor Protector S**

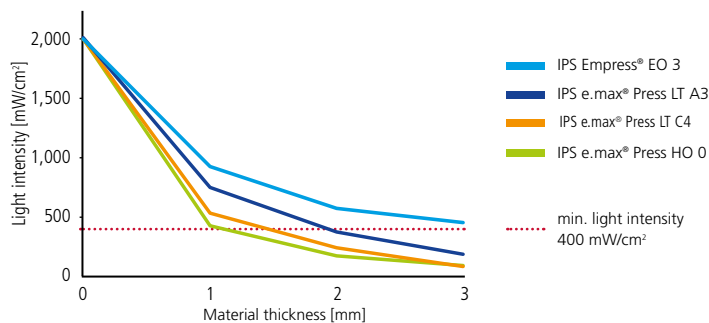
# 5

# Reliable curing performance for direct and indirect restorations

Light intensity is a decisive factor for both the quality of esthetic restorations and the adequate polymerization of light-curing materials. This is particularly true for indirect restorations, where the amount of light reaching the luting composite can be significantly reduced, depending on the thickness, shade and opacity of the restorative material. This means that in some cases not enough light may be delivered to the luting composite to cure it. Generally, a light intensity of 1,000 mW/cm<sup>2</sup> (Bluephase Style) per 1 mm layer thickness is recommended.

Bluephase Style 20i is a high-performance light that combines maximum power with extremely short curing times. Providing a light intensity of 2,000 mW/cm<sup>2</sup>, the light-curing unit is especially suitable for polymerizing luting composites in indirect restorations, alongside conventional curing applications in direct restorations. The high light intensity ensures that enough energy passes through the crown or inlay if the restoration is made of high-quality all-ceramic material, such as IPS e.max<sup>®</sup> or IPS Empress<sup>®</sup>, and this without stressing the soft tissues or pulp.

## Reduction of light intensity in ceramics



The light intensity varies considerably according to shade, opacity and material thickness.  
Source: R&D, Ivoclar Vivadent AG, Schaan, 2016

Bluephase<sup>®</sup> Style 20i

8 mm

# Polywave LED

## ensures maximum material compatibility

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If and how well a dental material polymerizes depends, among other things, on the light emitted. LED polymerization lights of the second generation with blue LEDs are certainly well adapted to camphorquinone, but emit light in a narrow spectrum, between 440 and 500 nm<sup>[8]</sup>.

In contrast to these LED lights, the purpose-designed Polywave® LED covers the entire wavelength range between 385 and 515 nm due to two different types of diodes, which produce light in the blue and violet spectrum.

This means that Bluephase Style and Bluephase Style 20i are suitable for curing all current dental photoinitiators and materials without limitations. These materials include restoratives, bonding agents/adhesives, bases, liners, fissure sealants, temporaries, as well as luting materials for brackets and indirect restorations such as ceramic inlays.

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“ This is essential in case of composites from the range of Bleach shades, which contain a higher amount of acyl phosphine oxide. This photo initiator cures rapidly when exposed to violet light. Polywave LEDs emit light in this colour and thus allow for curing reliability and long-lasting, esthetic results with composites of the Bleach shade range. In addition, polywave LEDs are superior to second-generation monowave LEDs. ”



**Dr Gordon J. Christensen**  
Dentist, USA



# Short curing times starting from 5 seconds

Effective energy transmission, combined with a light intensity of 2,000 mW/cm<sup>2</sup>, are the features of the Bluephase Style 20i that enable users to use extremely short curing times of only 5 seconds. Providing a light intensity of 1,200 mW/cm<sup>2</sup>, the Bluephase Style light-curing unit facilitates similarly short curing times of only 10 seconds. In this way, these light-curing units support time-efficient and therefore economically effective work routines.

LIGHT-CURING UNIT	CURING MODE	TIME	LIGHT INTENSITY	APPLICATION SPECTRUM	MATERIAL
Bluephase Style 20i	Turbo	5 seconds	2,000 mW/cm <sup>2</sup>	all restorations in Class I – V cavities indirect restorations (per mm of ceramic and per surface)	e.g. IPS Empress® Direct, Tetric Prime, Adhese Universal
Bluephase Style 20i Bluephase Style	High Power	10 seconds	1,200 mW/cm <sup>2</sup>	all direct and indirect restorations	e.g. IPS Empress Direct, Tetric-Line, Adhese Universal, Variolink® Esthetic

## Optimum curing power even over a distance

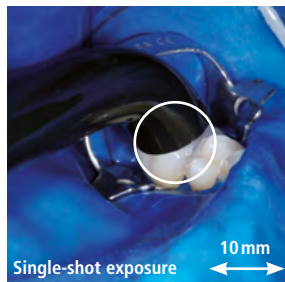
Special optical technology enables the intensive light to penetrate deep into the material to be cured. This ensures that exceptionally high light intensities are available in critical situations. A reliable cure can be achieved even when the material is illuminated from a long distance, for instance in proximal boxes. This means that the exposure time of the Bluephase Style only needs to be doubled if the distance is 9 mm or longer.



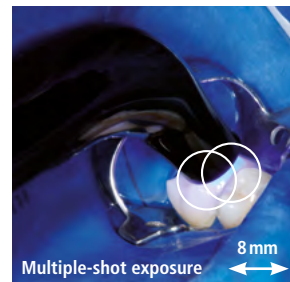


# Wide 10-mm light guide for time-saving single- exposure curing procedures

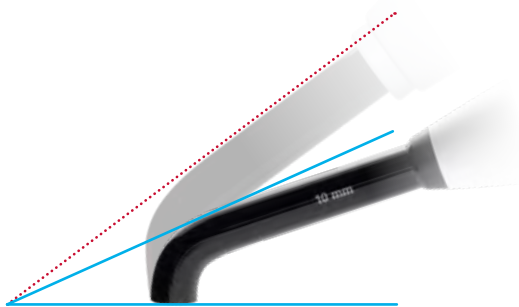
A wide 10-mm light guide enhances the curing efficiency of the Bluephase Style. Large areas are completely illuminated thanks to the large diameter of the guide tip. Large restorations, e.g. MOD fillings, can be cured in one shot; time consuming multiple exposures are no longer required.



Bluephase® Style



Unit with 8-mm light guide



Removable and autoclavable, the light guide clearly stands out from that of conventional curing lights. The light guide is shortened at the tip and can be freely rotated by 360 degrees, enabling access to all tooth surfaces. The mouth does not have to be opened extremely wide. This allows for more comfortable treatment, especially in children.

## Always ready to use – thanks to Click & Cure

Cordless operation provides maximum mobility in the dental practice. The proven Click & Cure function enables you to avoid irritating waiting times if the battery has run out. With just one click you can connect the handpiece to the power cord of the charging base.



This is how it works: Turn around charging base, remove power cord, attach to handpiece, resume work as usual.



# Delivery forms

## Technical data

### Technical data

	Bluephase® Style	Bluephase® Style 20i
<b>Light intensity</b>	1,200 mW/cm <sup>2</sup> ±10 %	2,000 mW/cm <sup>2</sup> ±10 %
<b>Every hand</b> (ergonomic design)	✓	✓
<b>Every material</b> (wavelength range)	✓ (385–515 nm)	✓ (385–515 nm)
<b>Every application</b> (continuous operation for at least 10 min)	✓	✓ (HIGH POWER)
<b>Every time</b> (Click & Cure: optional mains operation)	✓	✓
<b>Curing modes</b> HIGH POWER TURBO	1,200 mW/cm <sup>2</sup> –	1,200 mW/cm <sup>2</sup> 2,000 mW/cm <sup>2</sup>
<b>Curing time for selected composites</b> 2 mm   Tetric EvoCeram / IPS Empress Direct 4 mm   Tetric Evo Ceram Bulk Fill / Tetric EvoFlow Bulk Fill	10 s 10 s	5 s 5 s
<b>Power supply</b>	Contactless charging via lithium-polymer battery, capacity: approx. 20 min; charging time: approx. 2 h	
<b>Weight of handpiece</b>	120 g (including battery and light guide)	
<b>Dimensions of handpiece</b> (without light guide)	L= 180 mm, W= 30 mm, H= 30 mm	
<b>Weight of charging base</b>	195 g	
<b>Warranty</b>	3 years (battery: 1 year)	

### Delivery forms / accessories

	Bluephase® Style	Bluephase® Style 20i
<b>Complete unit 100 – 240 V</b> Handpiece, battery, light guide, charging base, power cord and power pack, accessories, Operating Instructions	635153 grey 642513 blue 642514 pink 682460 green	682109
<b>Handpiece</b> Handpiece, battery, light guide	637916 grey 643296 blue 643307 pink 682462 green	682110
<b>Light guide</b>	636240 10 mm, black	682151 10 > 8 mm, black
<b>6 &gt; 2-mm Pin-Point light guide</b>	636241	
<b>Anti-glare cone</b>	551756	
<b>Anti-glare shield</b>	592496	
<b>Protective sleeves, 1 x 50 pieces</b>	636239	



## Delivery forms

### Product

Bluephase Meter II

667124

## Measuring range

### Bluephase Meter II

Wavelength range	380 – 550 nm
Light intensity	300 – 12,000 mW/cm <sup>2</sup>
Circular light guides	Ø 6 – 12 mm, value measured in mW/cm <sup>2</sup> & mW
LED attached to the front	Ø 5 – 13 mm, value measured in mW
Measuring accuracy	± 10 % (compared with integrating sphere)

## Technical data

### Bluephase Meter II

Operating voltage	4.5 VDC
Power supply (batteries incl.)	3 x LR6 AA 1.5 VDC
Warranty	3 years

# Light intensity can be monitored



Generally, optical devices such as curing lights are susceptible to contamination and damage of all kinds. In order to ensure an adequate cure at all times at the shortest possible curing times, it is recommended to regularly check the performance of the curing light in use. The innovative Bluephase Meter II radiometer is designed to measure the light intensity of all types of light-curing devices (halogen, plasma, LED, etc.) and provides exceptionally accurate readings.



Click here for the video:

[www.ivoclarvivadent.com/bluephase-meter-2](http://www.ivoclarvivadent.com/bluephase-meter-2)





