# Bluephase Style

The curing light





# **Bluephase** Style – The smallest LED for every use ...



True innovation proves itself in use. A perfect example of this is the **Bluephase® Style** curing light with the specially developed Polywave® LED. The curing light is capable of polymerizing all current photoinitiators and materials.

The Bluephase curing lights set new stan-dards in every respect. They are not only the **best-selling LED polymerization lights** in Europe but they are also used in numerous clinical studies <sup>1</sup>. They have also been ranked top curing lights by independent and renowned test institutes.

Grounded in proven concepts and open to further development: These principles are embodied in the Bluephase Style. Bluephase Style offers a **high light intensity** (now with 1,200 mW/cm²) to enable short polymerization times and features a compact and ergonomic shape that ideally fits **the hand of every woman or man**.



Bluephase® Style, now also available in green.

<sup>1</sup> IADR Dubrovnik 2014

# ... and comfortable to fit every hand



Given the light's **low weight and balanced** weight distribution, the strain exerted on the hand and arm is reduced, regardless of the size of the hand. Bluephase Style can be held in the hand in a position that is comfortable and free of strain to suit your preferences.

Removable and autoclavable, the **light guide** of Bluephase Style clearly stands out from conventional designs. It is **shortened** and can be rotated by 360 degrees, enabling access to all tooth surfaces **without extreme opening of the mouth**. This makes the treatment more pleasant, for example, for children.



Competitive curing light



Even difficult-to-reach areas can be easily accessed with the Bluephase® Style. (Dr Eduardo Mahn, Santiago, Chile)

# **Every material** due to Polywave® LED

# Every indication due to continuous cooling

## Every time due to Click & Cure

1,200 mW/cm<sup>2</sup> Now 10% higher light intensity

If and how well a dental material polymerizes depends inter alia on the light emitted. In contrast to the LED lights of the second generation, Polywave LEDs cover the entire wavelength spectrum between 385 and 515 nm. Therefore, Bluephase Style is suitable for polymerizing all current photoinitiators and materials without any restrictions.

Because Bluephase Style incorporates particularly energy-efficient LED technology, it produces less heat and yet produces the same light output. As a result, the need for a fan is eliminated. That means you can just get on with your work – even when using the light in continuous operation to place extensive indirect restorations.

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

### **Easy operation**

Two-button operation

**Inductive charging** 

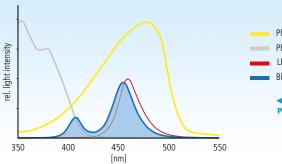
Contactless charging

of the battery

**Charging base with** battery charge indicator The illuminated ring appears black if the battery is fully

charged

### Wavelength range



Source: R&D Ivoclar Vivadent AG, Schaan, 2014



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

# Click & Cure

"The use of polywave LEDs significantly increases the conversion rate and Knoop microhardness in TPO-containing materials. This should be considered when bleach-coloured composites are light-cured, even if the manufacturer of the material does not give any details about the TPO content."

Santini A, Miletic V, Swift M, Bradley M: Degree of conversion and microhardness of TPO-containing resin based composites cured by polywave and monowave LED units. Journal of Dentistry 40 (2012), 577-584.

Warranty: 3 years **Battery: 1 year** 

"The emission spectrum of the curing light must be matched to the absorption spectrum of the photoinitiators. [...] Blue LEDs are therefore not suitable for composite materials which contain alternative photoinitiators. The violet-blue LED lights have been introduced to rectify this disadvantage."

Ilie N, Lohbauer U, Rosentritt M: Lichtpolymerisation. DZW - Das Deutsche Zahnärzteblatt (2016): 125 (6): p. 284-285.

# Bluephase Style cures effectively even from a distance

Given the large 10-mm diameter of the light guide, the light completely covers large cavities. Time-consuming multiple curing cycles for MOD restorations are thus no longer necessary.

Because of its high light intensity of 1,200 mW/cm², Bluephase Style allows large curing depths to be achieved with curing times as short as 10 seconds for certain composites and adhesives.

Special optical technology enables the intensive light to penetrate deep into the material to be polymerized. As a result, an exceptionally high light intensity is 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.

### Bluephase® Style

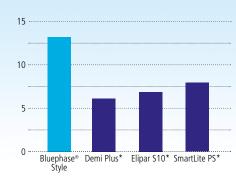


Competitive curing light



The 10-mm light guide allows MOD restorations to be light-cured in a time-saving single curing cycle.

### Transmission energy at a distance of 4 mm



Source: Excerpt R. Price, Dalhouse University Halifax, 2011 (study commissioned by Ivoclar Vivadent AG)

\* These trade names are not registered trademarks of Ivoclar Vivadent AG.





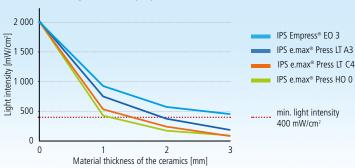
# Bluephase® Style 20i – The high-performance LED for shortest possible curing times ...

Bluephase Style 20i is a high-performance curing light that combines **maximum light output with extremely short curing times**. Besides traditional light curing in the field of direct restorations, Bluephase Style 20i is especially suitable **for the polymerization of indirect restorations**, and this without stressing the pulp or the soft tissue.

Depending on the material thickness, shade and opacity of an indirect restoration, the quantity of light reaching the luting composite can be significantly reduced. Especially for this indication, the very high light intensity of **2,000 mW/cm² in the Turbo mode** is of decisive advantage.

Consequently, **enough energy penetrates through the crown or inlay** even with high-quality all-ceramic restorations made of, for example, IPS e.max® or IPS Empress® - for a sufficient and reliable curing of the light or dual-curing composite.

### Reduction of light intensity by ceramics

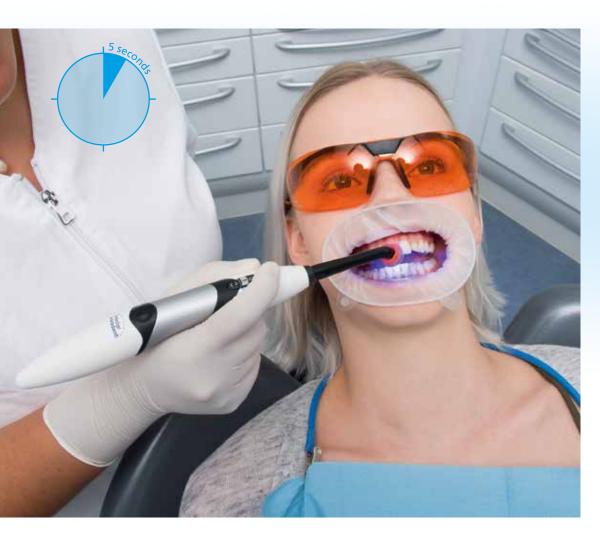


The light intensity varies considerably according to shade, opacity and material thickness.

Source: R&D, Ivoclar Vivadent AG, Schaan, 2016



# ... even with indirect restorations



Highly effective energy transmission additionally allows **extremely short curing times of 5 seconds only** – for time-saving and economic working procedures during everyday practice.

Bluephase Style 20i offers a selection of four different adjustable exposure times as well as the following two selectable curing programs **High Power (1,200 mW/cm²)** and **Turbo (2,000 mW/cm²)** – depending on the indication. The settings can be selected using one hand only.



Two different light intensities are available.

# **Bluephase** Style M8 – The LED for economical use

Bluephase Style M8 features an **ideal price-performance ratio** that suits every budget. A high light intensity of 800 mW/cm<sup>2</sup> allows dental materials to be **cured rapidly in only 15 seconds** in a wavelength range between 430 and 490 nm.

Equipped with a high-performance **lithium-polymer battery**, the curing light affords maximum flexibility in everyday dental work. Cordless operation means that the LED light can be used everywhere and anytime.

A selection of **four different exposure times** provides time-saving and reliable curing results. Operation is easy and intuitive.

Start button

Time selection button







Two-button operation



# Bluephase® Style at a glance

### Technical data

	Bluephase® Style M8	Bluephase® Style	Bluephase® Style 20i
Light intensity	800 mW/cm <sup>2</sup> ±10%	1,200 mW/cm <sup>2</sup> ±10%	2,000 mW/cm <sup>2</sup> ±10%
Every hand (ergonomic design)	<b>√</b>	<b>/</b>	<b>√</b>
Every material	_	✓	✓
(wavelength range)	(430-490 nm)	(385-515 nm)	(385-515 nm)
Every indication (continuous operation for at least 10 min)	<b>√</b>	<b>√</b>	(HIGH POWER)
Every time (Click & Cure: optional mains operation)	-	/	<b>√</b>
Curing modes HIGH POWER TURBO	800 mW/cm² –	1,200 mW/cm² –	1,200 mW/cm <sup>2</sup> 2,000 mW/cm <sup>2</sup>
Curing time for selected composite materials			
2 mm   Tetric EvoCeram / IPS Empress Direct	15 s	10 s	5 s
4 mm   Tetric Evo Ceram Bulk Fill / Tetric EvoFlow Bulk Fill	15 s	10 s	5 s
Power supply	Contactless charging via lithium-polymer battery, capacity: approx. 20 min; charging time: approx. 2 h		
Weight of handpiece	120 g (incl. battery and light guide)		
<b>Dimensions of handpiece</b> (without light guide)	L = 180 mm, W = 30 mm, H = 30 mm		
Weight of charging base	195 g		
Dimensions of charging base	D = 125 mm, H = 70 mm		
Warranty	2 years (battery: 1 year) 3 years (battery: 1 year)		





Bluephase® Style 20i

# Delivery forms/accessories

	Bluephase® Style M8	Bluephase® Style	Bluephase® Style 20i
Complete unit 100 – 240 V Handpiece, battery, light guide, charging base, power cord and power pack, accessories, Operating Instructions	667505	635153 grey 642513 blue 642514 pink 682460 green	682109
Handpiece Handpiece, battery, light guide	667496	637916 grey 643296 blue 643307 pink 682462 green	682110
Light guide	<b>667497</b> 10 mm, black	<b>636240</b> 10 mm, black	<b>682151</b> 10 > 8 mm, black
Light guide Pin-Point, 6 > 2 mm	636241		
Anti-glare cone	551756		
Anti-glare shield	592496		
Protective sleeves, 1 x 50 pieces	636239		



Bluephase® Style green/blue/pink/grey

# **Bluephase** Meter II – The dental radiometer

The **light intensity** is a decisive factor for the quality of light-cured restorations. In order to ensure adequate polymerisation at any time with the shortest possible curing times it is recommended to **regularly check the performance** of the curing light in use.

With the help of the Bluephase® Meter II, the light intensity [in mW/cm²] can be measured **quickly and accurately** at any time. Readings are obtained in **three simple steps**: Measure the diameter of the light guide using the template on the back, enter and illuminate the sensor with the help of the centering gauge.



The diameter of circular light guides is measured by means of the gauge on the back of the radiometer.

The innovative measuring principle results in an exceptional **measuring accuracy that has never been achieved** before. In addition, Bluephase Meter II is suitable **for all types of curing lights** (halogen, plasma, LED, etc).



The digital display is automatically activated when illuminated.



"Compared to the measured light performance of the gold standard PowerMax-Pro, Bluephase Meter II did not show any significant differences. The measured values of both devices are in almost perfect linear relationship. Bluephase Meter II therefore meets the specifications of the manufacturer with a tolerance range of ± 10%." Price R B, Harlow J E, Kearns J O, Sullivan B: Power Accuracy of a New Dental Radiometer, Dept. of Clinical Dental Sciences, Dalhousie University, Halifax, Nova Scotia, Kanada, Mar. 2016

# The reference for determining the light intensity in your dental practice



Bluephase® Style blue & Bluephase® Meter II

**Delivery forms** 

Product	Art. No.
Bluephase Meter II	667124
Bluephase Style 100 – 240 V grey & Bluephase Meter II	674243
Bluephase Style 100 – 240 V blue & Bluephase Meter II	674242
Bluephase Style 100 – 240 V pink & Bluephase Meter II	674244
Bluephase Style 100 – 240 V green & Bluephase Meter II	682461
Bluephase Style 20i 100 – 240 V & Bluephase Meter II	682108

Measuring range

Bluephase Meter II	
Wavelength range	380 – 550 nm
Light intensity	300 – 12,000 mW/cm <sup>2</sup>
Circular light guide	Ø 6 – 12 mm, value measured in mW/cm² & 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







Bluephase® Style forms part of the "Direct Restoratives" product category. The products of this category cover the procedure involved in the direct restoration of teeth – from preparation to restoration care. The products are optimally coordinated with each other and enable successful processing and application.



### THESE ARE FURTHER PRODUCTS OF THIS CATEGORY:

### Tetric EvoCeram® Bulk Fill & Tetric EvoFlow® Bulk Fill

High-performance posterior composite



### The efficient posterior composite

- Increment thickness of up to 4 mm due to the highly reactive light initiator Ivocerin®
- Dentin- or enamel-like volume replacement
- 10 sec. (≥1,000 mW/cm<sup>2</sup>)
- 47% less time required than with the conventional technique\*
- \* compared to Tetric EvoFlow® and Tetric EvoCeram®. Data available on request.

### Adhese® Universal

The universal adhesive



### Universal adhesion with advanced delivery

- Efficient delivery up to 190 single-tooth applications per 2 ml VivaPen
- Universal application for all bonding and etching techniques
- Predictable results high bond strength on dentin and enamel

Would you like to know more about the products of the "Direct Restoratives" category?

Simply get in touch with your contact person at Ivoclar Vivadent or visit www.ivoclarvivadent.com for more information.

Ivoclar Vivadent AG

Bendererstr. 2 9494 Schaan Liechtenstein Tel. +423 235 35 35 Fax +423 235 33 60

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