

Bluephase® PowerCure

The high-performance curing light



NEW
Bluephase G4 with
additional colours

With intelligent
curing assistant

Efficient
Esthetics

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Reliable curing, short exposures

The innovative Bluephase® PowerCure is designed for the intraoral polymerization of light-curing dental materials. It is the first Bluephase LED curing light that actively supports you in your light-curing tasks.

Reliable curing performance

due to Polyvision technology

Short curing times

starting from 3 seconds^[2]

Suitable for every light-curing material

due to Polywave LED

3-year warranty^[1]



3-second curing times^[2]

in combination with Tetric® PowerFill^[3-6], Tetric® PowerFlow and Adhese® Universal in the 3s PowerCure product system

[1] warranty on battery: 1 year

[2] only possible with the Bluephase PowerCure in the 3s PowerCure product system

[3] N. Ilie, Characteristics of composite and curing unit, *Presentation*, Munich, 2018.

[4] N. Ilie, Characteristics of composite and curing unit, *Study Report*, Munich, 2019.

[5] W. Palin, Polymerization characteristics of Tetric EvoCeram Bulk Fill and F-Composite 2, *Study Report*, Birmingham (UK), 2015.

[6] W. Palin, M. Hadis, High irradiance polymerization of "flash-cured" resin composites, *Study Report*, Birmingham (UK), 2018.

Esthetics are impossible without proper light curing

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

Intelligent LED light – carefree curing

Patented Polyvision technology is your personal assistant when it comes to curing dental materials.

This automatic assistance system helps you achieve reliable curing results. The curing light automatically detects movement of the handpiece during the light-curing procedure. It alerts the user of the improper operation by vibrating and automatically extends the exposure time by 10 per cent.



Polyvision®
INSIDE 

If the movement may prevent the material from curing properly, the light will automatically interrupt the exposure cycle. In addition, it will vibrate three times and emit an acoustic signal to alert the operator to the need to repeat the exposure cycle.

Bluephase PowerCure comes with active anti-glare protection to prevent the light from being activated in open space.

See how it works...

Bluephase PowerCure is outfitted with two cutting-edge sensors to make light-curing more reliable.



Watch the video to find out more:
www.ivoclarvivadent.com/polyvision_e



Reliable curing performance due to **high light intensity**

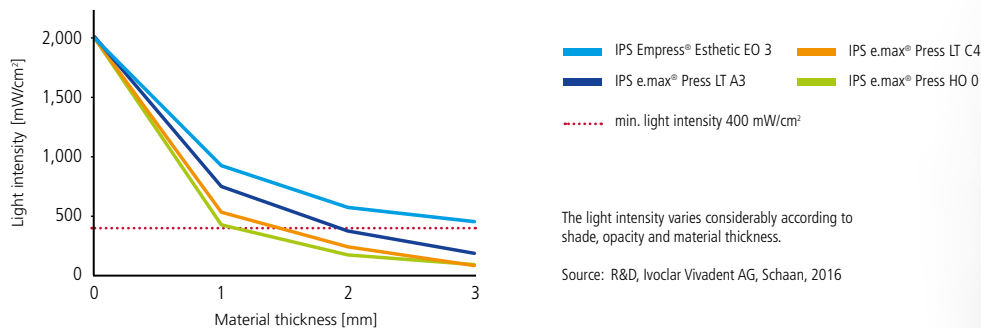
H☀️ High mode: 1,200 mW/cm²

Additionally, light intensity is a decisive factor for both the quality of esthetic restorations and the adequate polymerization of light-curing materials. Generally, a light intensity of 1,000 mW/cm² is recommended to be able to use short exposure times of 10 seconds even in conditions that may not be ideal but that are certainly common in day-to-day restorative care.

T☀️ Turbo mode: 2,000 mW/cm²

In some cases not enough light may be delivered to the luting composite to cure it. 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.

Reduction of light intensity in ceramics



Providing a light intensity of 2,000 mW/cm² in turbo mode, Bluephase PowerCure is especially suitable for polymerizing luting composites in indirect 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® or IPS Empress®.

3s☀️ 3s mode: 3,000 mW/cm²

Short curing times reduce the potential for errors during light-curing resulting in a significantly heightened quality of the final restoration. In the 3s mode, Bluephase PowerCure produces a light intensity of 3,000 mW/cm². This allows the exposure time to be reduced to 3 seconds [7].

[7] in the 3s PowerCure product system



Polywave LED

ensures maximum material compatibility



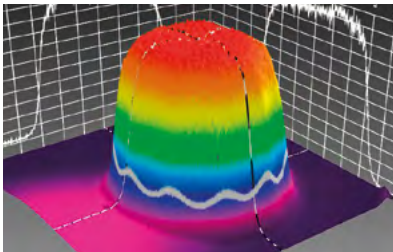
If and how well a dental material polymerizes depends, among other things, on the light emitted. LED polymerization lights of the second generation with blue LEDs are certainly well adapted to camphorquinone, but emit light in a narrow spectrum, between 440 and 500 nm^[8].

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.

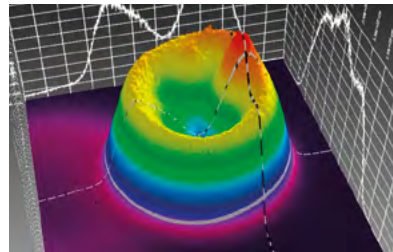
This means that Bluephase PowerCure is suitable for curing all current dental photoinitiators and materials without limitations. These materials include restoratives, bonding agents/adhesives, bases, liners, fissure sealants, temporaries, as well as luting materials for brackets and indirect restorations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

Uniform polymerization effect due to homogeneous light distribution

In addition to the light output and wavelength range, the distribution of the light emitted from the curing device is critical for a reliable polymerization process. If the light is not evenly distributed across the entire surface to be polymerized, the material may not achieve a complete depth of cure in some areas. Bluephase PowerCure uses a reflector that ensures a virtually homogeneous distribution of light.



Homogeneous light distribution of the Bluephase PowerCure



Example of heterogeneous light distribution

[8] Ilie N., Lohbauer U., Rosentritt M., Lichtpolymerisation, *DZW – Das Deutsche Zahnärzteblatt* 2016, 125 (6), 284-289.



Large anti-glare shield

Simple three-button operation

PreCure mode

Cleaning up excess light-cured adhesive composite can be difficult and unpredictable. The PreCure mode of the Bluephase PowerCure is pre-set to a light output of 950 mW/cm² and an exposure time of 2 seconds, especially designed for pre-curing Variolink Esthetic.

Excess material is cured to a consistency that is neither too hard nor too soft but just right for a high-quality controlled clean-up.

Ergonomically designed to fit comfortably in every hand

Backlit display for optimized hygiene

Integrated radiometer and Click&Cure

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Short curing times starting from 3 seconds

The high-performance Bluephase PowerCure produces a light intensity of 3,000 mW/cm², enabling extremely short curing times of only 3 seconds.

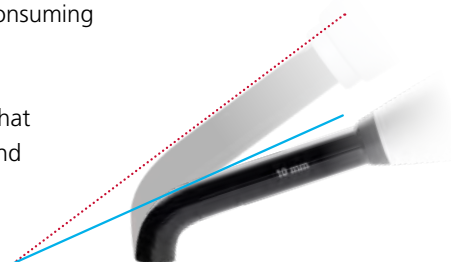
The “Turbo” and “High” modes provide similarly short curing times of 5 and 10 seconds respectively, depending on the material and application spectrum. This supports time-efficiency and therefore economically effective work routines, and this without stressing the pulp.

LIGHT-CURING UNIT	CURING MODE	TIME	LIGHT INTENSITY	APPLICATION SPECTRUM	MATERIAL
Bluephase PowerCure	3s	3 seconds	3,000 mW/cm ²	restorations in the posterior region of permanent dentition (Class I and II)	Tetric PowerFill ^[9-12] , Tetric PowerFlow, Adhese Universal
Bluephase PowerCure	Turbo	5 seconds	2,000 mW/cm ²	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 PowerCure Bluephase G4	High	10 seconds	1,200 mW/cm ²	all direct and indirect restorations	e.g. IPS Empress Direct, Tetric-Line, Adhese Universal, Variolink® Esthetic
Bluephase PowerCure Bluephase G4	PreCure	2 seconds	950 mW/cm ²	removal of cement excess	e.g. Variolink Esthetic

Wide 9-mm light guide for time-saving single-exposure curing procedures

A wide 9-mm light guide enhances the curing efficiency of the Bluephase PowerCure^[13]. 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.

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.



[9] N. Ilie, Characteristics of composite and curing unit, Presentation, Munich, 2018.

[10] N. Ilie, Characteristics of composite and curing unit, Study Report, Munich, 2019.

[11] W. Palin, Polymerization characteristics of Tetric EvoCeram Bulk Fill and F-Composite 2, Study Report, Birmingham (UK), 2015.

[12] W. Palin, M. Hadis, High irradiance polymerization of “flash-cured” resin composites, Study Report, Birmingham (UK), 2018.

[13] Bluephase G4: 10-mm light guide

Experience the difference with **3s PowerCure**



When direct Class I and II restorations are placed in permanent posterior teeth, 3-second exposures from the occlusal aspect are sufficient for all curing steps with the Bluephase PowerCure in the 3sCure mode. Simply expose Adhese Universal, Tetric PowerFill^[9-12] and Tetric PowerFlow to the light-intensity of 3,000 mW/cm² produced by the curing light. You will notice right away that the curing time you require is considerably reduced. At the same time, you will continue to achieve the customary high-quality esthetic results.

Delivery forms

667092	Bluephase PowerCure with Click & Cure and integrated radiometer	691257	Bluephase G4 grey with Click & Cure and integrated radiometer
691258	Bluephase G4 grey	691253	Bluephase G4 blue with Click & Cure and integrated radiometer
691254	Bluephase G4 blue	691260	Bluephase G4 green with Click & Cure and integrated radiometer
691261	Bluephase G4 green	691267	Bluephase G4 pink with Click & Cure and integrated radiometer
691268	Bluephase G4 pink		

NEW COLOURS

Enjoy similar technologies and clinical benefits with the Bluephase G4.

This curing light provides a light intensity of 1,200 mW/cm² and comes with High mode capability for light-curing all direct and indirect restorations.

Unlike the Bluephase PowerCure, it does not feature Turbo mode and 3s mode capabilities.



