bluephase® 20i

Licence to cure

new LED for every use
bluephase® –
The next generation in light-curing

Every material due to polywave® LED
With its specially developed polywave LED, the 2nd generation of the bluephase family sets new standards in the dental practice.

In contrast to conventional LED devices, the new polywave LED achieves an optimal broadband range from 385 to 515 nm, which is similar to the spectrum of halogen lights that served as its model. The new polywave LED light is therefore suitable for all photoinitiators.

Every indication due to continuous cooling
As opposed to annoying interruptions and irritating waiting times, the invisible and virtually noiseless fan of the bluephase light allows continuous operation without any clinical limitations – even extensive restorations can be placed without interruptions.

Every time due to Click & Cure
The proven Click & Cure function enables users to avoid irritating waiting times if the battery has run out. The handpiece can be connected to the power cord of the charging base with just one click.

This is how it works: Turn around charging base; remove power cord; attach to handpiece; resume work as usual.
bluephase® 20i – on a maximum mission

The dental experts agree:

Dr. A. Kurbad, Germany

I expect a polymerization light to fulfill the following requirements:
- reliable and constant light intensity,
- short curing times, sufficient battery capacity and the corresponding cooling system.

bluephase combines all these positive features in one product.

bluephase 20i …
The battery-operated bluephase 20i combines the highest light intensity of 2,000 mW/cm² in the Turbo program with extremely short curing times of no more than 5 seconds for light and dark composites while being gentle to the pulp and the soft tissue.

… on a maximum mission
The full capacity of bluephase 20i is particularly useful when consistent and maximum performance is required, for instance when all-ceramic restorations are placed or orthodontic brackets are bonded.

Due to the polymerization of every aspect for 5 seconds each and the integrated fan for continuous cooling, adhesively cemented IPS Empress® and IPS e.max® restorations are polymerized in no time.

Everything from the same manufacturer
Ivoclar Vivadent provides the best prerequisites for durable aesthetic composite restorations and adhesively cemented all-ceramic restorations by offering optimally coordinated products and outstanding precision in terms of light intensity. This is also supported by a field study conducted at the Johannes Gutenberg University.

Field test on light intensity (mW/cm²)

<table>
<thead>
<tr>
<th>Light Source</th>
<th>Value indicated by manufacturers</th>
<th>Mean value measured</th>
<th>Units with an intensity of &lt; 70 % of the value stated by manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>bluephase (previous model)</td>
<td>1,100 (± 10 %)</td>
<td>1,066</td>
<td>0 %</td>
</tr>
<tr>
<td>L.E. Dernier I*</td>
<td>1,000</td>
<td>699</td>
<td>67 %</td>
</tr>
<tr>
<td>Translux Power Blue*</td>
<td>1,000</td>
<td>513</td>
<td>100 %</td>
</tr>
<tr>
<td>Elite-one light 2*</td>
<td>1,000</td>
<td>602</td>
<td>58 %</td>
</tr>
</tbody>
</table>

Source: C.-P. Ernst, Johannes Gutenberg Universität Mainz, 2006 (excerpt)
* Not registered trademarks of Ivoclar Vivadent AG.

In this field study, the light output of 660 curing lights that are used in dental practices was tested. A particular feature of the test was that the light intensity was measured using the integrating sphere, which determines the absolute light intensity with high precision.

Four easy-to-use programs – Turbo for maximum performance, High Power for rapid curing, Low Power for curing areas near the pulp and Soft Start for stress-reduced polymerization.

The high light intensity allows polymerization in the shortest possible time in every clinical situation.

The full capacity of bluephase 20i is particularly useful when consistent and maximum performance is required, for instance when all-ceramic restorations are placed or orthodontic brackets are bonded.

Due to the polymerization of every aspect for 5 seconds each and the integrated fan for continuous cooling, adhesively cemented IPS Empress® and IPS e.max® restorations are polymerized in no time.

The high light intensity allows polymerization in the shortest possible time in every clinical situation.

Dr. A. Kurbad, Germany

The dental experts agree:
### Technical data at a glance

**bluephase® 20i**

- **Curing time for composites**
  - **Curing programs**
    - TURBO: 10 sec
    - HIGH Power: 5 sec
    - LOW Power: 10 sec
    - SOFT Start: 15 sec

- **Light probe**
  - 10 mm black

- **Power supply**
  - Lithium-polymer battery: 300 - 2,500 mW/cm² ±20%
  - Charging time: approx. 2h

- **Display**
  - OLED colour display
  - Digital LCD display

- **Warranty**
  - 3 years (battery 1 year)

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**bluephase® meter**

- **Curing time for composites**
  - **Curing programs**
    - TURBO: 10 sec
    - HIGH Power: 5 sec
    - LOW Power: 10 sec
    - SOFT Start: 15 sec

- **Power supply**
  - Lithium-polymer battery: 1,200 mW/cm² ±10%
  - Charging time: approx. 2h

- **Display**
  - OLED colour display

- **Warranty**
  - 3 years (battery 1 year)

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**Measuring the light intensity of LED curing lights**

<table>
<thead>
<tr>
<th>Feature</th>
<th>bluephase® 20i</th>
<th>bluephase® meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wavelength range</td>
<td>385 - 515 nm</td>
<td>385 - 515 nm</td>
</tr>
<tr>
<td>Curing time for composites</td>
<td>10 sec</td>
<td>15 sec</td>
</tr>
<tr>
<td>Curing time for Tetric EvoCeram/IPS Empress Direct</td>
<td>5 sec</td>
<td>10 sec</td>
</tr>
<tr>
<td>Light probe</td>
<td>10 mm black</td>
<td>10 mm black</td>
</tr>
<tr>
<td>Power supply</td>
<td>Lithium-polymer battery capacity: approx. 45 min charging time: approx. 2h</td>
<td>Lithium-polymer battery capacity: approx. 60 min charging time: approx. 2h</td>
</tr>
<tr>
<td>Display</td>
<td>OLED colour display</td>
<td>OLED colour display</td>
</tr>
<tr>
<td>Warranty</td>
<td>3 years (battery 1 year)</td>
<td>3 years (battery 1 year)</td>
</tr>
</tbody>
</table>

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**bluephase® meter – Licence to measure intensity**

The innovative radiometer with a unique measuring principle is used to determine the light intensity of LED curing lights with a circular light-emission window.

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**bluephase® meter – Accessories / delivery forms**

<table>
<thead>
<tr>
<th>Article no.</th>
<th>Description</th>
<th>Included in delivery form</th>
<th>Available as accessory</th>
</tr>
</thead>
<tbody>
<tr>
<td>613 735</td>
<td>bluephase® meter</td>
<td>✓</td>
<td>–</td>
</tr>
<tr>
<td>607 920</td>
<td>bluephase® 20i</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td>617 921</td>
<td>100 - 240V &amp; bluephase meter</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td>608 537</td>
<td>10 mm light probe, black</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td>627 389</td>
<td>10&gt;8 mm light probe, black</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td>608 538</td>
<td>6x2 mm (Pin-Point), black</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td>608 554</td>
<td>Protective sleeves</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td>551 756</td>
<td>Anti-glare cone</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td>592 496</td>
<td>Anti-glare shield</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td>627 300</td>
<td>Battery</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td>608 535</td>
<td>Handpiece</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td>613 753</td>
<td>Handpiece (handpiece, light probe 10&gt;8 mm)</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td>608 532</td>
<td>Handpiece (handpiece, light probe 10 mm)</td>
<td>–</td>
<td>✓</td>
</tr>
</tbody>
</table>

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**Technical data**

- **Light probe**
  - 10 mm black

**Accessories / delivery forms**

- **Handpiece**
  - (handpiece, battery, light probe 10>8 mm)
  - (handpiece, battery, light probe 10 mm)

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**new**

- **bluephase® meter – Licence to measure intensity**
- **Technical data at a glance**
- **Accessories / delivery forms**

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**Descriptions and data constitute no warranty of attributes.**

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