3s PowerCure
The product system for esthetic posterior restorations

The art of efficiency
The art of efficiency

3s PowerCure offers a fully coordinated range of products for long-lasting composite restorations of Class I and II cavities in the permanent posterior dentition.

Harness the power of a complete product system with Adhese® Universal single-component universal adhesive, Tetric® PowerFill sculptable 4-mm composite and Tetric® PowerFlow flowable 4-mm composite. Light-cure these components in 3 seconds from the occlusal surface using the intelligent Bluephase® PowerCure curing light. You will notice the time savings – whilst achieving the same quality and esthetics.

Natural esthetics in posterior teeth

Higher process reliability due to fewer increments

Fewer errors due to shorter curing times

Same performance as conventional composites

Time savings of up to 57% in posterior restorations

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1 Tetric PowerFill and Tetric PowerFlow compared to Tetric EvoCeram and Tetric EvoFlow; data available on request.
1. **Isolate**

Effective isolation with OptraGate®, cotton rolls and saliva ejector.

2. **Bond**

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

3. **Restore**

Tetric® PowerFill is a sculptable and Tetric® PowerFlow a flowable 4-mm composite with light-curing times starting from 3 seconds for posterior restorations.

4. **Cure**

Bluephase® PowerCure enables intelligent and quick curing times starting from 3 seconds with a light intensity of 3,000 mW/cm².

All the products for direct restorative procedures are optimally coordinated with each other and help you increase your workflow efficiency – without compromises in esthetics.
Natural esthetics in the posterior region

Would you rather opt for low translucency and esthetic results or high translucency and high depth of cure? The 4-mm composites Tetric PowerFill and Tetric PowerFlow combine the advantages of both properties so you can have both: esthetics and efficiency without dilemma.

The highly reactive, patented light initiator Ivocerin® has paved the way for the development of Tetric PowerFill and Tetric PowerFlow for esthetic posterior restorations.

Conventional composites designed for the placement of large increments are often very translucent. The highly reactive light initiator Ivocerin enables esthetic increments that feature an enamel- and dentin-like translucency and a reliable depth of cure.
The **Aessencio® technology** presents a milestone in the esthetic optimization of 4-mm composites. The material features a high initial translucency to be able to cure to the desired depth of cure. Whilst polymerizing, it gradually changes to a more opaque shade. In the case of Tetric PowerFlow, the final translucency is below 10% – a value that is very close to that of natural dentin. This allows stained tooth structure to be concealed effectively.

The in-vitro test demonstrates the effect of the Aessencio technology:
The black lines under the Tetric PowerFlow sample are clearly visible before light-curing. After curing, they are completely masked due to the change in translucency:

![Tetric PowerFlow before and after polymerization](image)

**Well-matched materials:**
The different consistencies and shades are uniquely formulated to be used in any combination. For instance, you can achieve restorations with natural esthetic properties by combining Tetric PowerFlow and Tetric EvoCeram.
Higher process reliability due to fewer increments

As they enable a streamlined application protocol, Tetric PowerFill and Tetric PowerFlow are less technique sensitive than conventional composite resins.

The reason: Increased layer thicknesses of up to 4 mm are possible. This means fewer working steps and therefore fewer possibilities for errors.

- **Reduced risk** for application errors
- **Reduced risk** for process-related air entrapment
- **Reduced risk** for inadequate curing results

![Preoperative situation](image1)
![Prepared cavity](image2)
![Baseline](image3)
![6-month recall](image4)

*The maximum layer thicknesses recommended for Tetric PowerFill and Tetric PowerFlow have been increased from 2 mm (conventional treatment protocol) to up to 4 mm.*

*Source: Dr Lukas Eggist, Ivoclar Vivadent, Liechtenstein*
Fewer errors thanks to short curing times

Light polymerization is seen as the most common source of error in direct restorative treatments. An efficient polymerization protocol that minimizes the curing time to the shortest possible length reduces the risks inherent in the light-curing step and increases the quality of the final restoration. All shades of the Tetric family of products can be cured with the same exposure times if the same light intensity is used.

Bluephase PowerCure curing light

<table>
<thead>
<tr>
<th>CURING MODE</th>
<th>TIME</th>
<th>LIGHT INTENSITY</th>
<th>INDICATIONS</th>
<th>MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>3s</td>
<td>3 seconds</td>
<td>3,000 mW/cm²</td>
<td>restorations in the posterior region of permanent dentition (Class I and II)</td>
<td>Tetric PowerFill, Tetric PowerFlow, Adhese Universal</td>
</tr>
<tr>
<td>Turbo</td>
<td>5 seconds</td>
<td>2,000 mW/cm²</td>
<td>all restorations in Class I – V cavities; indirect restorations (per mm of ceramic and per surface)</td>
<td>e.g. IPS Empress Direct, Tetric-Line</td>
</tr>
<tr>
<td>High</td>
<td>10 seconds</td>
<td>1,200 mW/cm²</td>
<td>all direct and indirect restorations</td>
<td>e.g. IPS Empress Direct, Tetric-Line, Adhese Universal, Variolink® Esthetic</td>
</tr>
<tr>
<td>PreCure</td>
<td>2 seconds</td>
<td>950 mW/cm²</td>
<td>removal of cement excess</td>
<td>e.g. Variolink Esthetic</td>
</tr>
</tbody>
</table>

Comparison: Bluephase G4 offers the curing modes “High” and “PreCure”.

Reliable curing results with Polyvision

The innovative Bluephase® PowerCure is the first intelligent Bluephase LED curing light that actively supports you in your polymerization tasks. The curing light automatically detects movement of the handpiece during the light-curing procedure and identifies the potential for an inadequate cure of the restoration. If this is the case, it alerts the user of the improper operation by vibrating and it automatically extends the exposure time by 10 per cent. If the handpiece accidentally slips a long way from its position, the light automatically switches off, allowing the operator to repeat the light-curing procedure applying the correct light dose.
Quality

**Same performance as conventional composite restorations**

Although they are applied in 4-mm increments and light-cured with significantly reduced curing times, Adhese Universal, Tetric PowerFill and Tetric PowerFlow result in only minimal polymerization shrinkage, excellent marginal adaptation and low heat development. Their physical properties have been shown several times to be on a par with those of conventional composites placed using a more complicated incremental method.

1 **Reliable curing results**

![Graph showing surface hardness comparison](Source: R&D Ivoclar Vivadent AG, Schaan, Liechtenstein, 2018)


2 **Low shrinkage**

![Graph showing shrinkage force comparison](Source: R&D Ivoclar Vivadent AG, Schaan, Liechtenstein, 2018)

3 **High flexural strength**

![Graph showing flexural strength comparison](Source: R&D Ivoclar Vivadent AG, Schaan, Liechtenstein, 2018)

4 **Predictable high bond strength values**

![Graph showing bond strength comparison](Source: R&D Ivoclar Vivadent AG, Schaan, Liechtenstein, 2018)
### 5 Excellent marginal adaptation

<table>
<thead>
<tr>
<th></th>
<th>Self-Etch</th>
<th>Etch &amp; Rinse</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 mm 3 sec Tetric® PowerFill</td>
<td>80%</td>
<td>90%</td>
</tr>
<tr>
<td>2 mm 10 sec Tetric® EvoCeram</td>
<td>85%</td>
<td>90%</td>
</tr>
<tr>
<td>4 mm 3 sec Tetric® PowerFill</td>
<td>85%</td>
<td>90%</td>
</tr>
<tr>
<td>2 mm 10 sec Tetric® EvoCeram</td>
<td>90%</td>
<td>90%</td>
</tr>
</tbody>
</table>

Source: Dr Uwe Blunck, Charité Berlin, Germany, 2018

### 6 Low heat development

<table>
<thead>
<tr>
<th></th>
<th>3,000 mW/cm²</th>
<th>1,200 mW/cm²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in temperature [°C]</td>
<td>5.5</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Dr Cesar Arrais, State University of Ponta Grossa, Paraná, Brazil (2018/2019)

See how it works! Read the science behind at: www.ivoclarvivadent.com/3s_Science_en
Save up to 57% on time in the posterior region\(^1\)

Tetric PowerFill and Tetric PowerFlow enable you to place restorations in fewer increments, allowing less toing and froing of materials, instruments and curing devices — whilst achieving the same or even better treatment results compared with conventional layering techniques.

This means: You can increase your dental workflow efficiencies and you will notice it.

<table>
<thead>
<tr>
<th>Fill</th>
<th>Cure</th>
<th>Fill</th>
<th>Cure</th>
<th>Fill</th>
<th>Cure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

Fewer steps thanks to 4-mm increments:

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 and Tetric PowerFlow to the light-intensity of 3,000 mW/cm\(^2\) 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.

"There is no way around the polymerization of composite materials. A 3-second cure comes in exceptionally handy here."

Dr Nathaniel Lawson
Assistant Professor and Division Director of Biomaterials
UAB School of Dentistry, Birmingham, USA
Delivery forms

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Article No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bluephase PowerCure &amp; System Kit Syringe</strong></td>
<td>668253</td>
</tr>
<tr>
<td>1x Bluephase PowerCure 100-240V with System Kit:</td>
<td></td>
</tr>
<tr>
<td>1x 3 g syringe Tetric PowerFill ™A, 1x 2 g syringe Tetric PowerFlow ™A, 1x 2 ml Adhese Universal VivaPen</td>
<td></td>
</tr>
<tr>
<td><strong>Bluephase PowerCure &amp; System Kit Mixed</strong></td>
<td>691918</td>
</tr>
<tr>
<td>1x Bluephase PowerCure 100-240V with System Kit:</td>
<td></td>
</tr>
<tr>
<td>20x 0.2 g Tetric PowerFill ™A, 1x 2 g syringe Tetric PowerFlow ™A, 1x 2 ml Adhese Universal VivaPen</td>
<td></td>
</tr>
<tr>
<td><strong>Tetric PowerFill System Kit Syringe</strong></td>
<td>692419WW</td>
</tr>
<tr>
<td>1x 3 g syringe Tetric PowerFill ™A, 1x 2 g syringe Tetric PowerFlow ™A, 1x 2 ml Adhese Universal VivaPen</td>
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<td><strong>Tetric PowerFill System Kit Mixed</strong></td>
<td>692421WW</td>
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Additional delivery forms are available.