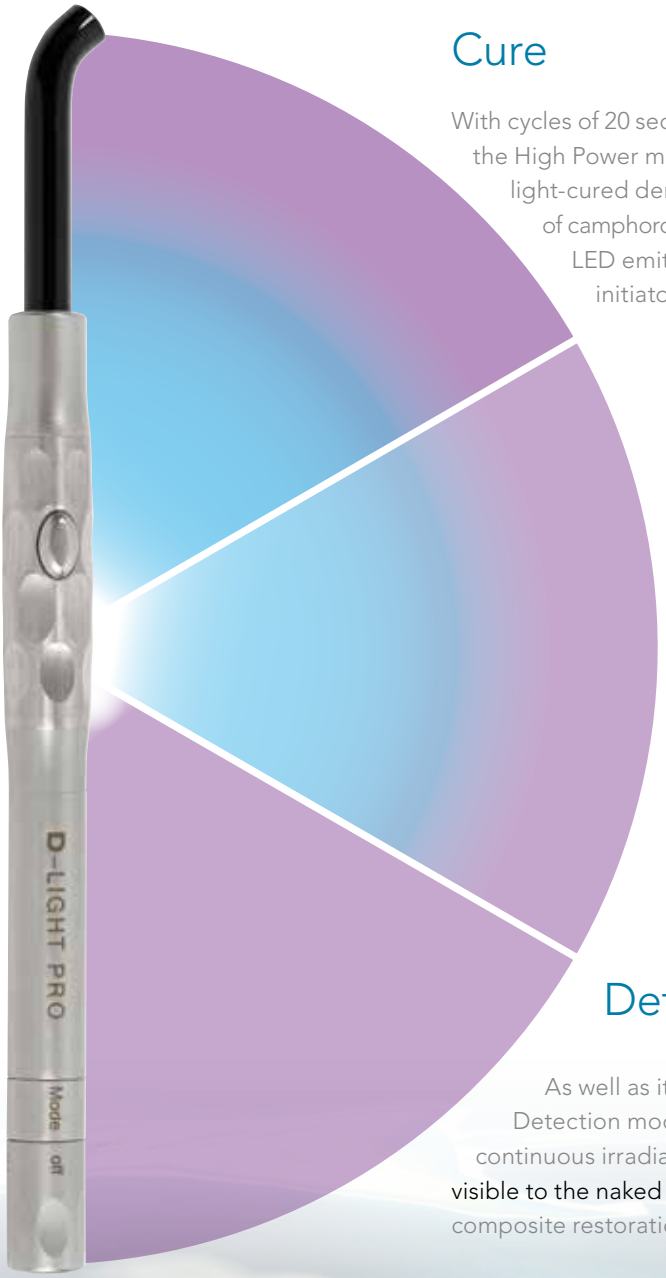

See more
than meets the eye
D-Light® Pro
from GC
Dual wavelength
LED curing light
GC

D-Light Pro from GC is a high-powered, dual wavelength LED curing light developed to broaden your options: efficient light-curing of course, but much more besides.

Discover how a very small and lightweight device can open your eyes to the invisible…

Cure. Protect. Detect.



Cure

With cycles of 20 seconds at an output of 1400mW/cm² and a dual wavelength, the High Power mode (HP) guarantees a very efficient polymerisation of all light-cured dental materials. The blue LED ensures an optimal activation of camphorquinone with a wavelength of 460-465 nm, while the violet LED emitting at 400-405nm enables efficient curing of other initiators such as TPO or PPD.

Protect

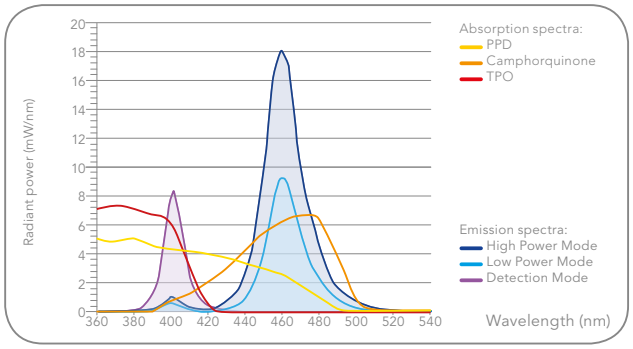
The Low Power mode (LP) also features 20-second cycles with a dual wavelength, but with a reduced power output of 700mW/cm². This curing program is perfect when you want to limit heat generation, for instance in deep cavities when the preparation comes close to the pulp.

Detect

As well as its ideal curing functions, D-Light Pro also has a unique Detection mode (DT) that uses near-UV light only. This violet mode with continuous irradiation of 60 seconds enables you to spot what is not always visible to the naked eye: from infected dentin to plaque, micro-leakage, old composite restorations…

Keep an eye out
for outstanding performance

Wide emission spectrum to efficiently polymerise all materials



Emission spectrum of D-Light Pro in its three curing modes and absorption spectrum of commonly used photo-initiators

Product categories	Efficiently polymerised with D-Light Pro?
Paste composite (GC G-ænial Anterior, GC Essentia)	✔
Flowable composite (GC G-ænial Universal Flo)	✔
Fibre-reinforced composite (GC everX Posterior)	✔
Resin-modified glass ionomer (GC Fuji II LC)	✔
Characterisation coating (GC Optiglaze COLOR)	✔
Bonding agent (GC G-Premio BOND)	✔

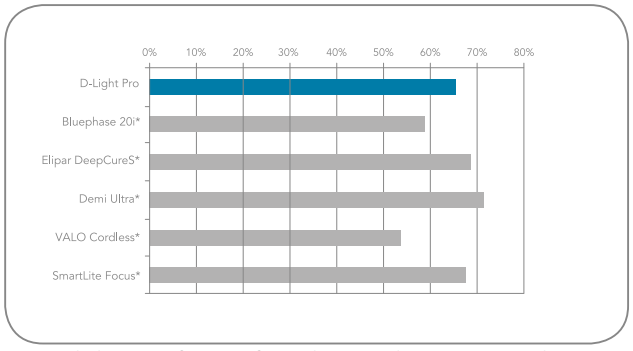
Efficient curing of all GC materials

Camphorquinone is the main photo-initiator used in light-cured dental materials. However, some light-coloured or translucent materials are based on other photo-initiators such as TPO or PPD. These initiators have a different absorption spectrum and so require a curing device emitting at the right wavelength to trigger the polymerisation of the material.

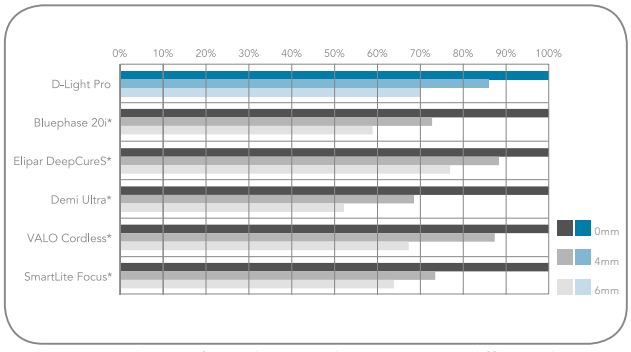
D-Light Pro High Power (HP) and Low Power (LP) modes involve two different LEDs (blue and violet) with peaks at both 460-465nm (in camphorquinone peak) and 400-405nm (in PPD/TPO peaks). Thanks to its dual wavelength, D-Light Pro efficiently polymerises all types of materials, regardless of the photo-initiator used in the formulation.

The Detection (DT) mode is based solely on the violet LED and so presents only one peak in its spectrum. Its aim is not to polymerise materials but to help you visualise bacterial activity and fluorescent materials.

Efficient irradiation regardless of the distance



Light beam uniformity of D-Light Pro and competitor products



Remaining irradiance of D-Light Pro and competitors at different distances

In some clinical situations and especially in the posterior area, it is often not possible to place the curing light in ideal proximity to the material that should be polymerised.

Having a uniform light beam is an important parameter, as it ensures that the energy is spread evenly onto the restoration. A uniform and well-collimated light beam guarantees that the irradiance at the material's surface will be sufficient for efficient polymerisation, even when the light is not held at an optimal distance.

Source: Internal R&D data available on demand.

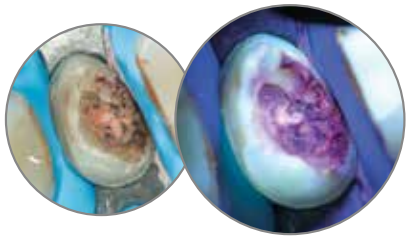
* Bluephase, Elipar, Demi, VALO and SmartLite are not trademarks of GC.

See the invisible

The presence of bacteria is easily highlighted when using violet light, as areas displaying bacterial activity exhibit a red fluorescence when exposed to it, while healthy tooth structure shows a green fluorescence. For this reason, the Detection mode of D-Light Pro allows visualisation of plaque and infected dentin, and to assess the presence of micro-leakage and bacterial activity in fissures. Additionally, it helps you to clearly differentiate between tooth structure and fluorescent restorative materials, and thus to follow a minimally invasive approach whenever possible.

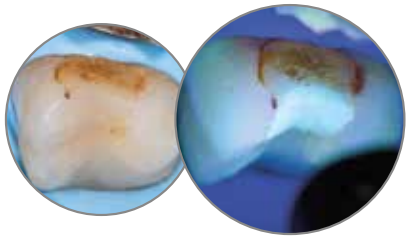
Visualisation of active plaque

The violet light highlights the presence of active plaque on the surface of the teeth, helping you to easily identify the areas at risk.



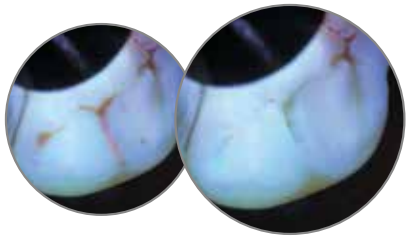
Visualisation of infected dentin

Exposed infected dentin (in preparations and open cavities) shows a red fluorescence under violet light. In this case, the use of the Detection mode enables you to prepare your cavities in a minimally invasive way, making sure to remove only the dentin that presents a risk.



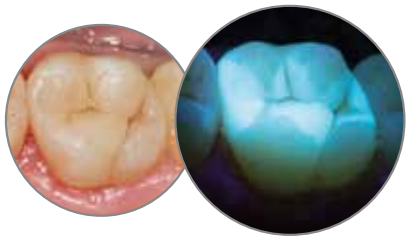
Visualisation of micro-leakage

The Detection mode of D-Light Pro is also a great tool for evaluating margins of old restorations. It helps you to assess if the marginal seal is still satisfactory, and to differentiate between staining and micro-leakage, because only bacterial activity appears red under violet light.



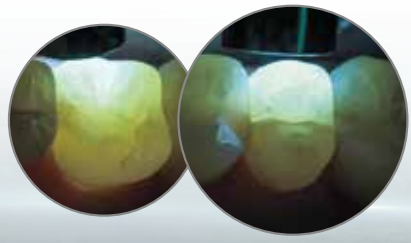
Assessment of bacterial activity in fissures

When sealing fissures, it is important to be certain that no bacteria remain in the fissures before the application of the sealant. Violet light is the ideal way to confirm that the cleaning step has been thorough.



Visualisation of restorations and excess cement

Many composite materials exhibit a hyper-fluorescence when exposed to violet light, which makes them easily distinguishable from natural tooth structure. The use of the Detection mode helps you to leave the tooth structure intact when removing old restorations or excess cement, for instance after removal of orthodontic brackets.



Assessment of crack depth

The Detection mode used with the transillumination technique (shining the light through the tooth structure from the buccal/palatal side) is an excellent tool to assess the depth of cracks in the tooth structure. If the light goes fully through (left), it indicates that cracks are not very deep; but if light is stopped at the level of a crack (right), it suggests a deep crack and further investigation is needed.

Pictures courtesy of Dr Javier Tapia Guadix, Spain

GC Europe has developed guidelines and products to identify risk factors, prevent the development of carious lesions and restore teeth following a "Minimum Intervention" philosophy. Learn more on the GC Europe website!

Believe your eyes: D-Light Pro is so light and small that you can handle it like an instrument

Pen-like handling

Excellent intraoral access in posterior area

With a total weight of around 90 g and a very thin, pen-like handpiece, D-Light Pro offers unsurpassed handling features - **it feels and can be manipulated just like a hand instrument.** Combining great intraoral access in posterior and easy placement in anterior, D-Light Pro ensures **optimal comfort for both patient and clinician.**

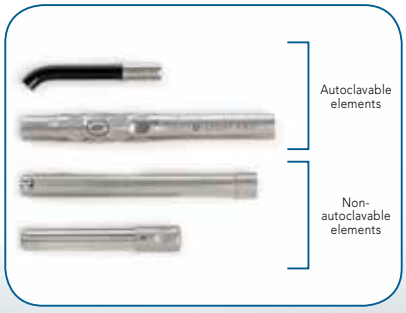
Recharge your batteries in the blink of an eye!

With D-Light Pro, **running out of power is never an issue!** With two battery packs included in the kit, you can **easily switch batteries** in a few seconds whenever needed. The elegant charging station can also **charge both batteries simultaneously** when the light is not in use. The **integrated radiometer** helps to confirm that the power output is high enough for efficient curing.

Easy plug-in/plug-out of the battery pack

The charging station enables simultaneous charging of two battery packs

And there is more to D-Light Pro than meets the eye…



Removing the electronic module & battery pack before autoclaving

D-Light Pro has another unique feature: it is the **first curing light that can be fully autoclaved** after its electronic components have been removed from the handpiece, **ensuring optimal hygiene for all your special cases.**

D-Light Pro from GC

See more than meets the eye

D-Light Pro	
901412	**D-Light Pro Kit** Including: D-Light Pro handpiece (sleeve & electronic module), light-guide 8 mm, battery packs (x 2), charging station, power supply, EU/UK adapters, hard eye-protection shield, soft eye-protection shields (x 3)
901413	D-Light Pro handpiece sleeve
890378	D-Light Duo/Pro light-guide 8 mm
901414	D-Light Pro battery pack
901415	D-Light Pro charging station
901416	D-Light Pro power supply & EU/UK adapters
901417	D-Light Pro hard eye-protection shield
890380	D-Light Duo/Pro soft eye-protection shields (x 10)

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