Redefining strength, durability and hygiene

The Elipar™ S10 LED Curing Light was designed with the high quality standards you expect from dental instruments. Once you experience its seamless, stainless steel body, you’ll understand the advantages it has over the curing lights with a vented plastic body.

Hydroformed from stainless steel for unique performance advantages

The Elipar™ S10 LED light is different by design. It’s created from a manufacturing process called hydroforming—a cost-effective, precise method used in the automotive and sporting goods industries. Hydroforming allows us to build the unique ergonomic shape. Its one-piece design fits in a strong and steady, and it’s sleek and high-tech look.

Virtually unbreakable and sealed

The one-piece, stainless steel exterior offers extraordinary strength. And because the surface has no seams or vents where liquid can seep to, the internal components are kept free of contamination.

Hygiene control on a new level

Cleaning instruments can be time-consuming, and some chemicals can damage the appearance of the equipment. The Elipar S10 light is different by design. It’s created from a manufacturing process called hydroforming—a technology popular with the high-end automotive and sporting goods industries. Hydroforming is key to its unique ergonomic shape. In one-piece design that is strong and steady, and it’s sleek and high-tech look.

Long-life, high-performance Li-ion battery technology.

The advanced Li-ion battery provides mobile, cordless operation. A single fully charged battery provides 85 minutes of use time (or 300 10-second cures).

- Induction LED donors level of battery charge.
- Battery can be fully exchanged in 5 seconds.
- Easy tool-free battery exchange.

Technical Data Sheet

Introduction

A complete cure of adhesives, filling materials and cements is essential to the long-term success of restorations. However, curing can be challenging in some situations. An inadequate cure may result in decreased strength and stability of the final result, as well as restoration failure.

The Elipar™ S10 LED Curing Light from 3M ESPE is designed to give you confidence during any curing procedure.

Charger

- Operating voltage: 100-127 V 50/60 Hz or 230 V 50/60 Hz
- Power input: 15 W

Handpiece

- Power supply: Lithium-ion battery
- Utilizable wavelength range: 430-480 nm
- Wavelength peak: 455 nm ± 10 nm
- Light intensity (between 400 and 515 nm): 1200 mW/cm² ± 10% (independent of battery power level)
- Optically active light emission area: 60-65 mm²
- Timer settings: 5, 10, 15, 20 seconds, continuous mode (120 sec) and tack cure mode
- Total exposure time (cure, fully charged battery): typically 60 min
- Charging time: empty battery approximately 1.5 hr
- Continuous runtime until thermal safety shutdown: typically 7 minutes at a room temperature of 23°C (73.4°F)
- Dimensions (diameter, length): 28 mm, 270 mm (1.10 in, 10.63 in)
- Weight: 250 g (0.55 lb) (incl. light guide)
Elipar S10
LED Curing Light

The latest LED technology
...for effective and efficient curing

The top-of-the-line optical power of the Elipar S10 light delivers key benefits:
- High intensity 1200 mW/cm² provides a fast, complete cure.
- Mib 10 mm light guide cures a larger surface area.
- Light output remains consistent throughout the battery charge, and does not weaken during prolonged curing procedures.
- Light meter built into the charger station

......for a fast cure

With such high intensity, the Elipar S10 light realizes polymerization of compatible, light-cured dental materials in half the manufacturer’s recommended curing time. To avoid excessive polymerization, the light guide delivers the optimal intensity at the tip. It even delivers a fast, 5-second cure.

......for one-shot, large-surface curing

The wide 10 mm light guide offers up to 60% more illumination surface compared to leading decades earlier. That makes it possible to cure larger restoration surfaces on the first shot.

......for a complete cure

The spectrum of the Elipar S10 light matches the absorption spectrum of the most commonly used initiator camphorquinones, so the Elipar S10 light cures the broad range of light-cured dental materials. The well-balanced intensity of 1200 mW/cm² is high enough for a fast, complete cure—yet in a pulp-friendly range.

Redefining depth-of-cure

The latest curing technology empowers the light guide so close as possible to the dental material in order to maximize light intensity. In some clinical situations—like curing the bottom layer in a deep cavity—close positioning is not possible. In that case, a hybrid distance between light guide and material is about 7 mm.

By design, the Elipar™ S10 LED Curing Light compensates for clinically relevant distances.

A high intensity output is maintained, even at a distance, for improved depth of cure in hard-to-reach situations.

The broader curing light beams do not come out straight, but bent with a certain angle due to beam spread. With increasing distance from the tip, the same amount of light is spread over a larger area, and so is the intensity, dropping sharply (Fig. 4). The optics of the Elipar S10 light are optimized to deliver a more focused light output.

Redefining ease of use

The intuitive design of the Elipar S10 LED Curing Light is ideal for use with 3M™ ESPE™ light-curing cement, for easier and more predictable excesses easier and more predictable. For easier removal, excesses can be trimmed gently without complicating the index. With a simple press of a button, light is emitted for 10 seconds each. The specimen was hemisectioned and Vickers hardness was determined with a micro indenter. The Elipar™ S10 LED Curing Light offers a high depth of cure compared to other curing lights. The higher intensity at clinically relevant distances directly translates into a significantly improved depth of cure.

The higher intensity at clinically relevant distances directly translates into a significantly improved depth of cure.

Simple, intuitive operation

There really is no “learning curve” with the Elipar S10 light. It is designed for maximum simplicity—everything is clearly visible and easy to access.

- Single-button operation with one cure mode that covers all indications.
- Unique, multi-setting light button features easy push button control and set timing intervals of 5, 10, 15 and 20 seconds, a continuous 30-second mode, and a 60-second mode.
- A unique back-ear function allows predictable curing with reproducible short light pulses produced by simply pressing the button. This unique function allows for not only curing a shorter light pulse, which can result in a longer, harder cure, but also an even longer, harder cure when cured from a clinically relevant distance of 7 mm.

The delivery of light for the Elipar™ S10 LED Curing Light is focused to a more intense beam, as compared to other curing lights. The more focused light output results in a higher intensity at clinically relevant distances.

The drive for the Elipar™ S10 LED Curing Light delivers consistently high hardness throughout the filling.

The higher intensity at clinically relevant distances directly translates into a significantly improved depth of cure.

Fit for ultimate performance with the Elipar S10 light.

Excellent
Good
Fair