TECHNOVIT® BLUE LED FLASHLIGHT 2.0
Product No. 813-610

Acquired from Kulzer Mitsui Chemicals Group, User Manual Technovit® Blue LED 2.0, Version 1.0, 07/2024; Technovit® Blue LED Light Polymerization Lamp User Instructions, Version NENA, 07/2017

Figure 1: The Technovit® Blue LED Flashlight 2.0

DESCRIPTION

The Technovit® Blue LED Flashlight 2.0 (Figure 1) is a mobile light source for the polymerization of light-curing Technovit® products, especially in field metallography. The flashlight is designed for use in combination with the products of the Technovit® 2200 Series (product numbers 813-720 through 813-723). Many applications of the Technovit® 2200 series are performed in the field and not in the laboratory. The flashlight can also be used with other Kulzer Technovit® blue-light curing products (e.g. Technovit® 2000 and 2021 series). With its rechargeable lithium battery, the Technovit® Blue LED Flashlight 2.0 provides a real alternative to stationary light curing devices.

USING the Technovit® Blue LED Flashlight 2.0

- Charge the battery using the included USB cable in a USB port.
- Press the button on the back of the device to change the light source in the following order (Figure 2):
  - One click: white light (Fig. 2a)
  - Two clicks: blue light (2b)
  - Three clicks: purple light (2c)
- Extend the flashlight head to enlarge or reduce the irradiation area (Figure 3).

Figure 2: Technovit® Blue LED Flashlight 2.0 Flashlight Settings
(2a) One Click: White Light; (2b) Two Clicks: Blue Light; (2c) Three Clicks: Purple Light

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Figure 3: Technovit® Blue LED Flashlight 2.0 Irradiation Area Focus

APPLICATION

The Technovit® Blue LED Flashlight 2.0 is exclusively designed for the curing of light-curing products in the industrial/materialographic sector and is designed for use in combination with the products of the Technovit® 2200 Series:

- The ready-to-use Technovit® 2200 products are applied to prepared surfaces (sanded/cleaned) with a brush or directly from a syringe. Objects to be fixed are held with tweezers.
- Position the Technovit® Blue LED Flashlight 2.0 at a distance of 1 cm above the applied Technovit® product. Turn the unit on (press the "Blue Light" button twice). Depending on the product, the polymerization period is 20-60 seconds. Keep the light cone as small as possible to avoid radiation loss.
- Use a separate timer (not included) for time measurement.
- After the end of polymerization, turn off the Technovit® Blue LED Flashlight 2.0.
- Process hardened Technovit® products as specified in Table 1.

	Technovit® 2200	Technovit® 2210	Technovit® 2220
Polymerization Time	40 s	40 s	60 s
Max. Curing Layer Depth	7 mm†	5 mm	7 mm†

†For larger curing depths work in several layers.

Table 1: Technovit® Blue LED Flashlight 2.0 Curing Time with Depth for Various Technovit® Products

CLEANING AND MAINTENANCE

The Technovit® Blue LED Flashlight 2.0 is maintenance-free. Keep dry and lint-free. Clean lens regularly to avoid dimming. Use a damp, soft cloth to clean. Do not use harsh cleaners.

INCLUDED ITEMS

- Technovit® Blue LED Flashlight 2.0
- USB Charging Cable

TECHNICAL DATA

- Power supply: 5 V USB, Lithium Battery (fixed)
- LED Current: 350 mA
- Light output: max. approx. 120mW
- Wavelength (blue): 460 nm, +/- 20 nm
- Life of LED: min. 1000h
- Housing dimensions: 30mm X 125mm
- Weight: approx. 70g
- Operating temperature range: +10 ºC - +35 ºC.
- Temperature range for storage/transport: -10 ºC - +40 ºC.
- Air pressure 500-1060hPa

DISPOSAL INSTRUCTIONS

- Do not dispose of device in household garbage. Dispose at recycling collection point.
- Explosion hazard! Do not incinerate.

CAUTION! OPTICAL RADIATION LED Class 2

- Never look with unprotected eyes into the LED beam. Wearing of tinted glasses (not included, product 19824) is recommended.
- Do not look directly at the irradiated area for long periods of time.
- Never point the beam onto faces of other people.
- If someone points the LED beam into your eyes, close your eyes and turn your head away.
- Do not use or store within reach of children - Unit is not a toy!
- Work in a bright environment.
- Do not use the device if outer damage is visible.
- Use only under dry conditions and in a dry environment.
- Protect the device from moisture and extreme heat. Never submerge in liquids!
- Do not open the device, except on the backside for accessing battery.
- Never do repairs on your own - changes affect product safety and increase risk of injury.
- Handle with care - product can be easily damaged by crushing, banging or dropping short distances.
- Use only for application described above. Using for other applications may cause damage to the product or its environment.

SOURCE DOCUMENTS

User Manual Technovit® Blue LED 2.0, Version 1.0, 07/2024
Technovit® Blue LED Light Polymerization Lamp User Instructions, Version NENA, 07/2017
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