

VITA VM[®]LC polymerization information

Overview of the polymerization devices tested by VITA in combination with VITA VM LC

List of recommendations at a glance:

Company	Unit	recommended	suitable*
Bredent	bre.lux Power Unit 2	✓	
	bre.lux Power Unit		✓
DeguDent / Dentsply	Triad 2000		✓
	Eclipse Junior VLC Curing Unit		✓
ESPE	Visio Beta vario		✓
GC	Labolight Duo		✓
Hager&Werken	Speed Labolight	✓	
Ivoclar Vivadent	Lumamat 100		✓
Kulzer	HiLite Power	✓	
	Heraflash	✓	
	Uni XS	✓	
	Dentacolor XS	✓	
Shofu	Solidilite Ex		✓
	Solidilite V		✓
Sirio Dental	SR 620 Sibari		✓

*Meets or exceeds the requirements of DIN EN ISO 10477 for bending strength when new.

Polymerization times of VITA VM LC in the individual polymerization devices

Please note the important explanatory notes in the user instructions before use.

Company / Unit	Polymerization PRE OPAQUE OPAQUE PASTE	Polymerization OPAQUE powder	Intermediate polymerization up to max. 1.5 mm	Final polymerization and pontics up to max. 2 mm	Information
Bredent					
bre.lux Power Unit	180 sec.	360 sec.	180 sec.	360 sec.	OPAQUE powder: COLOR OPAQUE CO 1-3 and GINGIVA OPAQUE must be polymerized 2 x 360 sec
bre.lux Power Unit 2	Per layer 1 x Progr. F3	Per layer 1 x Progr. F3	1 x Progr. F3	2 x Progr. F3	
DeguDent / Dentsply					
Triad 2000	4 min. (rotating plate situated on the floor) Use of PRE OPAQUE recommended.	2 min. (rotating plate situated at approx. 3 cm above the floor of the unit)	6 min. (rotating plate situated on the floor of the unit)	10 min. (rotating plate situated on the floor of the unit)	Halogen lamp 275 Watts
Eclipse Junior VLC Curing Unit	OPAQUE PASTE A1-D4, 1M1-4M2: 1 x 5 min. per layer (1 x Basic 2 program) GINGIVA OPAQUE PASTE: 1 x 10 min. per layer (1 x Final program)	OPAQUE A1-D3, 0M1-5M3: 1 x 5 min. per layer (1 x Basic 2 program) COLOR & GINGIVA OPAQUE: 1 x 10 min. per layer (1 x Final program)	1 x 10 min. (1 x Final program)	2 x 10 min. (2 x Final program)	The object must be placed in the center of the chamber.
Company / Unit	Polymerization PRE OPAQUE	Polymerization OPAQUE powder	Intermediate polymerization	Final polymerization and pontics up to max.	Information

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	OPAQUE PASTE		up to max. 1.5 mm	2 mm	
3M Espe					
Visio Beta vario	1 x 7 min. per layer, incl. 10 sec. vacuum	OPAQUE A1-D3, OM1-5M3: 1 x 7 min. per layer, incl. 10 sec. vacuum COLOR & GINGIVA OPAQUE: 2 x 7 min. per layer, incl. 10 sec. vacuum	2 x 7 min. incl. 10 sec. vacuum	2 x 7 min. incl. 10 sec. vacuum	OPAQUE powder: Please observe the longer polymerization times for COLOR & GINGIVA OPAQUE. To avoid the formation of bubbles, the opaque must be applied thinly.
GC					
Labolight Duo	90 sec.	5 min.	5 min.	10 min.	Object must be positioned in the curing area specified by the manufacturer. See GC Labolight Duo operating manual
Hager & Werken					
Speed Labolight (Replace pre-installed T8 black light lamps by the enclosed 9W white light lamps)	3 min.	5 min.	5 min.	10 min.	The object must be placed in the cone of light high in the center of the chamber. The object must not be placed on the floor! Lamps: 8 x Osram Dulux S 9W/71 or 8 x Philips PLS - 9W/52 and also 1 x Halogen Osram HLX 15 V/150 W
Heraeus Kulzer					
Dentacolor XS	90 sec.	180 sec.	90 sec.	2 x 180 sec.	The object must be placed high in the chamber. The object must not be placed on the floor!
UniXS	90 sec.	2 x 180 sec.	90 sec.	2 x 180 sec.	
Heraflash	90 sec.	2 x 180 sec.	90 sec.	3 x 180 sec.	
HiLite Power	90 sec.	2 x 180 sec.	90 sec.	3 x 180 sec.	
Ivoclar Vivadent					
Lumamat 100	Heating level 0 VB = 0 VG = 3:00 min. (BP = 3:00 min.)	Heating level 1 VB = 0 VG = 2:00 min. (BP = 3:40 min.)	Heating level 1 VB = 0 VG = 4:30 min. (BP = 6:10 min.)	Heating level 3 VB = 0 VG = 7:00 min. (BP = 10:10 min.)	The times and heating levels must be programmed by the user! VB = Pre curing VG = Tempering BP = Resulting curing time
Shofu Dental					
Solidilite EX	3 min.	10 min.	10 min.	15 min.	The object must be placed in the cone of light in the center of the chamber . The object must not be placed on the floor.
Solidilite V	3 min.	5 min.	10 min.	15 min.	
Sirio Dental					
SR 620 Sibari	3 min.	5 min.	5 min.	10 min.	Object must be placed in the cone of light, in the center of the rotating plate! Veneer surfaces must face outwards.

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Polymerization information

The values given are based exclusively on correctly functioning equipment. For light-curing composites, the polymerization result strongly depends on the power of the unit in use "Things worth knowing about light curing." Our recommendations for application in the case of polymerization (regardless of whether they have been provided orally, in writing or in the form of practical instructions) are based on extensive experience and tests. The user, however, should consider this information only as a reference. If the polymerization result does not correspond to the result to be achieved under optimum conditions, the polymerization unit must be checked with regard to lamp function, duration of operation and contamination. The maintenance instructions provided by the manufacturer must be observed.

Information on polymerization:

- For **fixation** of the materials during layering, additional prepolymerization units may be used.
- **Intermediate polymerization** can be carried out at any time during layering. However, it is only mandatory if milling is to be performed during layering.
- If a layer thickness of 2 mm is reached during layering, final polymerization must be carried out.
- If the dispersion layer is retained, layering can be continued immediately after polymerization.
- For complete curing of multi-unit constructions, additional polymerization of the interdental spaces (dark zones) is required.
- The object must be aligned accordingly.
- To prevent formation of an inhibition layer and facilitate finishing, we recommend the use of VITA VM LC GEL during final polymerization. Apply a coat of gel directly from the syringe to cover the entire veneer surface or use an instrument (do not use a brush) to apply the gel. Perform final polymerization and then completely remove VITA VM LC GEL using running water. Finish and polish subsequently.
- Please ensure that no solvents, such as VITA VM LC Cleaner, are embedded in the veneers or applied to the veneer before final polishing.