cement-retained crown using the Laser-Lok® Easy Ti temp abutment and PEEK plastic sleeves
cement-retained crown using the Laser-Lok Easy Ti temp abutment and PEEK plastic sleeves

Use this technique for the fabrication of long-term, single-implant, cement-retained, temporary restorations. The abutment has Laser-Lok microchannels for connective tissue attachment and is TiN coated for esthetics.

Laser-Lok has been shown to create a biologic seal by establishing a physical, connective tissue attachment to the abutment. Use this technique at the time of implant placement, implant uncovering or when a Laser-Lok healing abutment has been used to establish and maintain the biologic seal.

Important: For ideal results, Laser-Lok components should be used throughout the healing, temporization and final abutment phases. When a Laser-Lok component is temporarily removed for impression making or other restorative procedures, keep the removed Laser-Lok component in sterile saline until reinserting into the mouth.

Component options

- Laser-Lok easy ti-temp custom temporary abutment PEEK plastic sleeves
- .050” (1.25mm) hex driver
- torque wrench
- abutment prepping handle

1 Remove the Laser-Lok healing abutment

Remove the Laser-Lok healing abutment using a .050” (1.25mm) hex driver. Make sure the prosthetic platform is free of bone and soft tissue.

2 Seat the Easy Ti temp abutment

Seat the Easy Ti temp abutment, engaging the hex of the implant. Hand tighten the abutment screw using an .050” (1.25mm) hex driver.
cement-retained crown using the Laser-Lok Easy Ti temp abutment and PEEK plastic sleeves

3 Mark the abutment

Evaluate inter-occlusal dimensions, angulation, and tissue contour. Mark the abutment for the required vertical reduction and allow about 2mm of clearance for the restoration.

Important
Maintain at least 3mm of abutment height to avoid damaging the abutment screw.

4 Modify the abutment

Remove the marked Easy Ti abutment and secure it to the end of the Laser-Lok protective sleeve marked “Full Ti” using an .050” (1.25mm) hex driver and hand tighten. Modify the abutment for vertical clearance using a carbide bur or a cut-off disk. Do not modify the margin where the Laser-Lok zone is located.

Note:
Replace the healing abutment immediately to prevent soft tissue collapse over the implant.

Remove the healing abutment. Verify the implant prosthetic platform is free of bone and soft tissue. Place the modified Easy Ti temp abutment onto the implant using the abutment screw and tighten the abutment to 30 Ncm using a calibrated torque wrench and an .050” (1.25mm) hex driver.

5 Modify the PEEK sleeve

Place a resilient material of choice (gutta-percha, silicone or temporary filling material) into the screw access hole and fill the remaining channel with composite or another material of choice. This allows for easy access to the abutment screw in the future.

Place the Easy Ti Temp PEEK plastic sleeve over the modified Ti Temp abutment. Contour the plastic sleeve to match the modified Ti Temp abutment.
cement-retained crown using the Laser-Lok Easy Ti temp abutment and PEEK plastic sleeves

6 Prepare the shell crown
Seat the appropriate polycarbonate/shell crown and modify as needed following conventional procedures.

Helpful Hint:
Block-out any undercuts on the adjacent teeth as necessary to prevent locking the temporary in place.

7 Reline the shell crown
Mix acrylic or a material of choice and place enough material inside the shell crown to cover the plastic sleeve and ensure the sleeve will be picked up. Position the shell crown over the PEEK sleeve/abutment assembly.

Note:
Care must be taken to minimize the amount of reline material placed in the shell crown to prevent the acrylic/crown from locking onto the abutment base and to reduce the risk of acrylic contaminating the Laser-Lok zone of the abutment.

8 Remove the shell crown
Remove the relined shell crown. The plastic sleeve should be picked up in this step. Fill in any voids and add material to establish the desired emergence contour of the temporary. Check the occlusion and contacts. There should only be light contact in centric occlusion and no contact in lateral excursions. Modify as necessary and polish after making adjustments.
cement-retained crown using the Laser-Lok Easy Ti temp abutment and PEEK plastic sleeves

9 Cement the crown

- Place a small amount of cement around the inside margin of the crown.

⚠ Important:
See crown cementation technique module.

10 Deliver the temporary crown

- Seat the temporary crown on the abutment, engaging the square at the base of the abutment. Remove all excess cement from the sulcus. Modify as necessary and polish after making adjustments.