

Direct Posterior Restoration with Stela Self Curing Bulk-Fill Composite



AUTHORS



Maribi Isomar Terán Lozada

Pos-Doc, Operative Dentistry and Dental Materials Department
School of Dentistry
Federal University of Uberlândia, MG, Brazil



Airin Karelys Avendaño Rondón

PhD Student, Operative Dentistry and Dental Materials Department
School of Dentistry
Federal University of Uberlândia, MG, Brazil



Maryuri Del Carmen Macias Bautista

PhD Student, Operative Dentistry and Dental Materials Department
School of Dentistry
Federal University of Uberlândia, MG, Brazil



Carlos José Soares

Professor at Operative Dentistry and Dental Materials Department
School of Dentistry
Federal University of Uberlândia, MG, Brazil

OVERVIEW

A 30-year-old female sought clinical care. She presented with cold sensitivity and discomfort associated with a fractured restoration on tooth 36. Clinical and radiographic examination revealed a defective restoration with no evidence of active caries. The treatment plan involved removal of the existing restoration followed by a direct posterior restoration using **Stela Capsule** self-curing bulk-fill composite.

Following cavity preparation, **Stela Primer** was applied and then the **Stela Capsule** was triturated for 10 seconds and dispensed directly into the cavity in a single increment using the **Riva Applicator**. The restoration was then finished and polished.

The self-curing chemistry of **Stela Capsule** enables complete polymerisation throughout the restoration, regardless of cavity depth, allowing true single-increment placement. The self-etching **Stela Primer** promotes reliable adhesive integration with the tooth structure, while the material's low polymerisation shrinkage stress supports marginal integrity. Shade adaptation to the surrounding dentition provided a natural aesthetic result.

The restoration achieved a functional, well-adapted, and aesthetic result. The patient reported no postoperative sensitivity and was satisfied with the outcome.

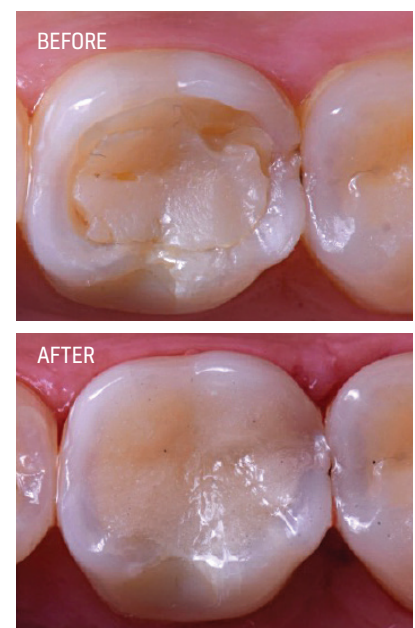




Fig 1 Pre-operative occlusal view of tooth 36 showing a fractured restoration with dentine exposure, resulting in cold sensitivity and food impaction.



Fig 2 Isolation of the operative field.



Fig 3 The prepared cavity showed reactionary dentine with enamel margins maintained at all cavosurface angles.



Fig 4 Active application of **Stela Primer** using a Points micro applicator, rubbing the primer into the cavity for 3 seconds.



Fig 5 Gentle air drying to evaporate the solvent.



Fig 6 **Stela Capsule** was triturated for 10 seconds and dispensed directly into the cavity in a single increment.



Fig 7 The capsule tip was gradually withdrawn after placement to minimise air entrapment and the material was adapted using a condenser.



Fig 8 Occlusal anatomy was sculpted prior to chemical setting. After 4 minutes, a water-soluble gel was applied to eliminate the oxygen-inhibited layer before finishing.



Fig 9 The restoration was finished using a fine-grit diamond bur to refine the occlusal anatomy and margins, demonstrating excellent shade integration with the surrounding tooth structure.



Fig 10 Final restoration after finishing and polishing, showing restoration of form, function, and aesthetics with a satisfactory clinical outcome.

PRODUCT REFERENCES



STELA CAPSULE



STELA PRIMER



RIVA APPLICATOR