

Using FitStrip™ Diamond Abrasive Strips during Tooth Preparation and Bonding of Ceramic Veneers



Dr. Attilio Sommella

Dr. Attilio Sommella is an internationally recognized dental professional whose career bridges advanced clinical practice, dental technology, and academic contribution, with a primary focus on aesthetic fixed prosthetics. Trained initially as a Dental Technician, he graduated from IPSIA Casanova in Naples in 1985, establishing a strong technical foundation that would later distinguish his clinical and research-driven approach to restorative dentistry.

Building upon his technical expertise, Dr. Sommella earned his degree in Dental Medicine in 2016 from the Instituto Superior de Ciências da Saúde-Norte in Portugal. This dual qualification as both technician and clinician has been central to his ability to integrate laboratory precision with minimally invasive clinical outcomes, particularly in high-aesthetic fixed prosthetic rehabilitations.

Throughout his career, Dr. Sommella has played an active role in academic education, delivering lectures and supporting educational programs at multiple Italian universities. His commitment to education extends beyond the classroom, as he is a frequent international speaker, widely recognized for his expertise in dental aesthetics and ceramic systems.

He is the author of numerous articles published in both national and international scientific journals and has made significant contributions to professional literature. His first major publication, "The incisal margin, a strong point in the expression of an incisive," was published in Italian by Teamwork Media Srl and later released in English by Palmeri Publishing Inc. (Canada), reflecting the global relevance of his work. He is also co-author of the multi-language textbook "Veneers. Minimally invasive reconstructions. Clinical-technical aspects," published by Teamwork Media Italia, a key reference in contemporary veneer dentistry.

Innovation has been a defining theme of Dr. Sommella's career. In 1999, he filed a patent for "The engraving cards," a simplified working system for ceramics designed to enhance predictability and aesthetic precision. His inventive contributions also include the development of calibrated drills, AS Deep Markers and AS-micro Deep Markers, produced by Horico Dental, as well as multiple proprietary clinical techniques. These include a minimally invasive micrometric tooth reduction technique, a self-centering geometric preparation design for ceramic veneers, and an analog impression technique using a modified metal matrix, all aimed at improving accuracy while preserving tooth structure.

In recognition of his professional impact, Dr. Sommella received the AIOP-ANTLO "Roberto Polcan" International Award in 2006, underscoring his influence in both clinical excellence and innovation within prosthetic dentistry. He also serves as a member of the scientific committee for Dental Dialogue and Teamwork Clinic, contributing to the advancement of evidence-based aesthetic dentistry at an international level.

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FitStrip diamond abrasive strips are an extremely useful tool for finishing and checking interproximal margins during tooth preparation and the bonding of ceramic veneers. These thin abrasive stainless-steel strips, available in different grits and designs, allow clinicians to precisely remove excess cement during veneer bonding in hard-to-reach areas, reducing the risk of trauma to soft tissues and to the ceramic itself.

Their ergonomic design and the option for manual use provide excellent handling and control, improving marginal adaptation and the overall quality of the final restoration.

Likewise, accuracy in tooth preparation is one of the key factors for the long-term success of ceramic veneers. In addition to proper margin design, it is essential to achieve smooth surfaces, harmonious contours, and above all, well-managed interproximal contacts, for both functional and esthetic reasons.

In this context, Garrison® FitStrip products prove to be extremely useful not only during the final bonding stage, but also throughout the preparation phase. Their thin, flexible, and easily controllable structure enables accurate, minimally invasive interproximal finishing, which is essential for:

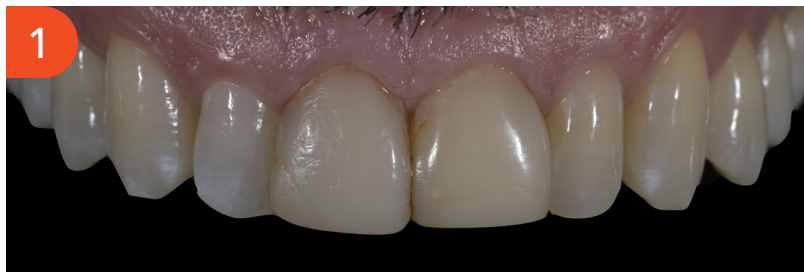
- Finishing proximal walls after initial reduction with rotary burs
- Refining cervical margins and minimizing micro-irregularities
- Gently opening interproximal contacts while preserving soft tissue

The ergonomic handle, manual-use option, and availability in multiple grits allow the clinician to adjust the abrasive action depending on the treatment phase, from pre-finishing to polishing.

FitStrip becomes an extension of the clinician's tactile sensitivity, providing a level of control that is impossible to achieve with traditional rotary instruments, especially in areas where visibility and access are limited. This results in a more precise, conservative, and clean preparation, improving both the accuracy of digital scanning/impressions and the marginal fit of the final restoration.

Ultimately, integrating Garrison FitStrip into daily clinical practice is not only helpful during cementation, but also represents a valuable ally during tooth preparation, helping elevate the technical and esthetic quality of ceramic veneer treatment.

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Clinical case at the first visit.



Pre-visualization of the reconstructive prosthetic treatment plan using the mock-up technique.



Removal of old restorations and creation of minimally invasive tooth preparations.



Refinement of proximal surfaces using FitStrip abrasive matrices with a manual technique.

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Using the Garrison FitStrip 0.11mm super fine to begin the preparation sequence.



The 0.30mm coarse FitStrip is the next step.



The Garrison FitStrip 0.40mm is used to complete preparation.

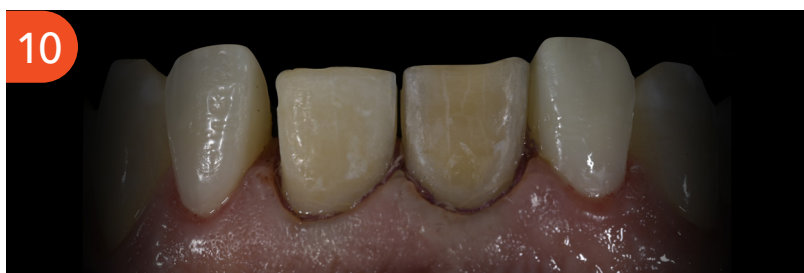


The perforated abrasive strip allows cleaner execution because the multiple holes in the strip enable immediate and easier removal of abrasive debris.

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Occlusal view of the finalized tooth preparations.



Placement of retraction cords for intraoral scanning or traditional analog impressions.

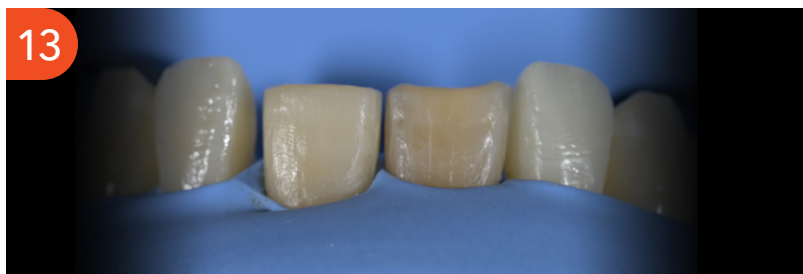


Testing the restorations intraorally.

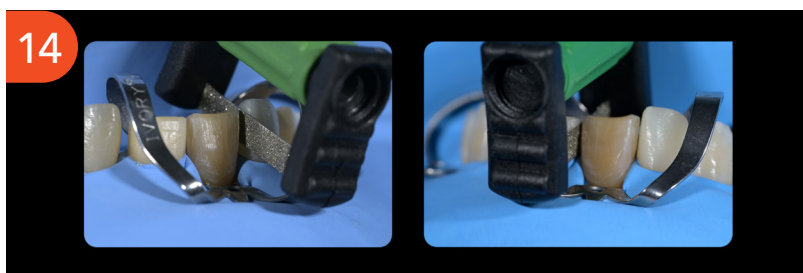


Close-up view of the ceramic restorations in place, excellent integration in terms of esthetics and precision.

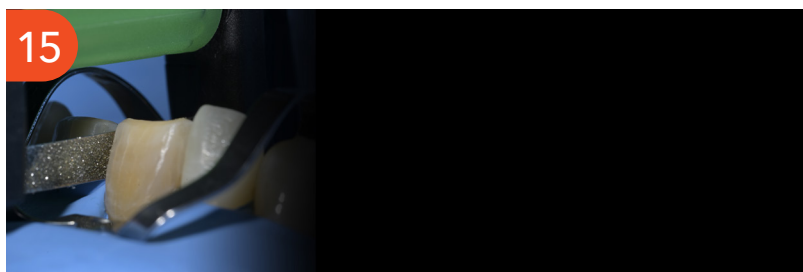
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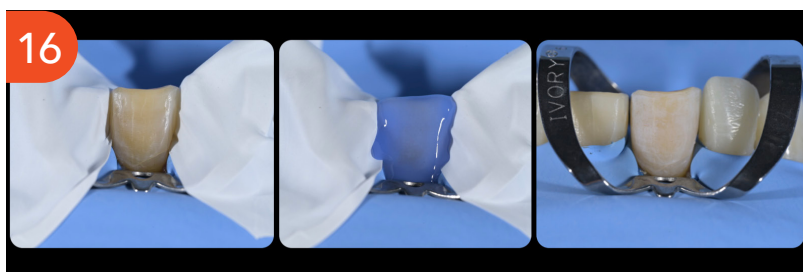
Placement of the rubber dam.



Inspection and minimally invasive cleaning of the proximal surfaces of the tooth preparations.



Inspection and minimally invasive cleaning of the proximal surfaces of the tooth preparations. (cont.)

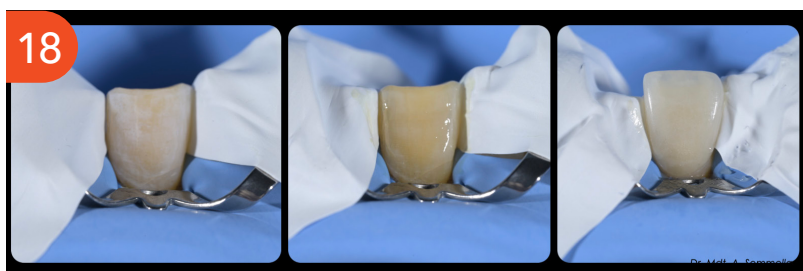


Enamel etching sequence.

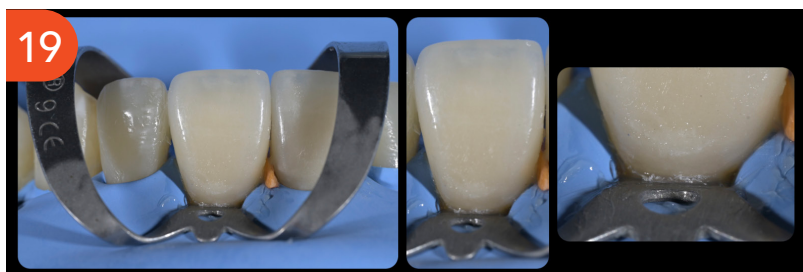
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Final testing to verify correct positioning of the single veneer on the tooth preparation.



Ceramic veneer bonding sequence.

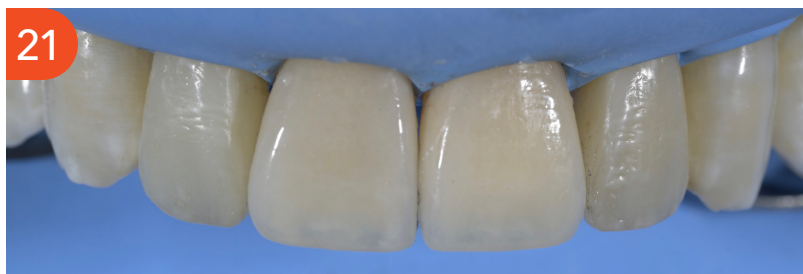


Detail showing the marginal precision of the ceramic veneer after bonding.



Refinement of the proximal areas, highlighting the three-step sequence.

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Ceramic veneer bonding completed.



Final case result.



Close-up view of the restorations show good integration.