



**Klausz Dental  
Laboratories Ltd.**

Working **harder and smarter** for your practice!

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## "We Build Advanced Occlusal Concepts Into Everything We Do!"

### We've grown into an O.I.C.S. Specialty Laboratory!

At **Klausz Dental Laboratories**, we are committed to providing our clients with a full range of services, restorations, and appliances to meet all aspects of clinical dentistry. To meet your expectations we have grown into an **Occlusal-Implant-Cosmetic-Sleep (O.I.C.S.) Specialty Laboratory** and we have solidified our position as a leader in these fields through various certifications.

With over 55 years of experience in the dental technology field, we build advanced occlusal concepts into every restoration and appliance we custom fabricate. It's with a greater understanding of how teeth, muscles and joints work together that we can create restorations that not only look lifelike and aesthetic, but can last longer and function better. Allow us to apply the knowledge we've accumulated into your next restoration or appliance. See why we've become an **O.I.C.S. Specialty Laboratory**.

## Aqualizer Temporary Splints & ACU-flow Bite Registration Material An Unbeatable Combination



We are the largest distributor of Aqualizer Appliances in Canada

Acu-flow Bite Registration Material is the perfect companion product to use with the Aqualizer Bite Registration Technique, or any other Functional or Protrusive Bite Registration Technique.

We are proud to announce that you can purchase both Aqualizer Temporary Splints and ACU-flow Bite Registration material directly from us. By ordering from us, you can even save on the shipping charges, as we can deliver these products along with your next case.

With over 55 years experience in the dental laboratory field, we've worked hard to earn your trust, and it's a trust we do not take lightly. Every day we strive to exceed your expectations, and being able to provide you with more great products is just another way we're, "Working Harder and Smarter For Your Practice!"



## 3D Digitally Printed Night Guards and Bruxism Appliances

### Fit - Strength - Value

We are proud to be able to offer our clients a variety of options when it comes to splint therapy. With the advent of digital technologies, we are able to fabricate night guards and bruxism appliances through our digital printing process and pass the cost savings onto you.

Whether you choose to send digital files, physical impressions, or stone models we can design and print an appliance for you.



- ✓ Biocompatible
- ✓ Semi-Transparent
- ✓ Polishable
- ✓ Stain resistant
- ✓ Abrasion resistant
- ✓ Fracture resistant
- ✓ Balances flexibility and strength
- ✓ Easily cleaned and maintained



Similar to dual-laminate material, these appliances can be softened under warm water for ideal fit and comfort yet still provide strength, without brittleness, to last as long, if not longer than, other traditional splint materials.

Looking for innovative ideas, is just another way we are,  
“Working Harder and Smarter for your Practice!”

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We are constantly updating our website to serve you better.  
Your portal to all that's new and exciting in dental technology:



[www.klauszdentallab.com](http://www.klauszdentallab.com)



## Anodizing Titanium To Make Your Implant Abutments More Aesthetic

Titanium anodizing is an electrolytic finishing process that manipulates the oxide layer on the surface of titanium. This allows us to add a warm gold colour to your titanium abutments, improving the shade of the final restoration from the inside and eliminating the grey show through of metal abutments below the tissue surface.



The medical and dental device industry has widely used this titanium anodizing process, since anodized titanium parts are nontoxic and suitable for biomedical applications such as orthopedic and dental implants.

### How does anodizing work with titanium?

Anodizing is an electrochemical process that uses both electricity and chemistry to manipulate the oxide layer of titanium. The titanium part, serving as the anode (positive electrode), is immersed in an aqueous electrolyte solution such as trisodium phosphate (TSP) or various salts. When an electrical current is applied, water molecules undergo hydrolysis and split into hydrogen and oxygen. The electrical potential forces the oxygen to the titanium surface, adding to the thin layer of titanium oxide.



The final perceived colour depends on the thickness of the oxide layer, which can be adjusted by varying the voltage and the immersion time. The titanium oxide layer gives the perception of colour due to an interference phenomenon, similar to a prism. Light reflects from both the oxide layer and the underlying titanium at different angles and those reflections interfere with each other. Certain wavelengths of light cancel each other out or combine, so that the remaining light is perceived as colour. No dyes are required to produce the colour perception, thus adding to the biomedical safety of the finished part.



Helping our clients achieve the very best clinical outcomes, is just another way we are,  
“Working Harder and Smarter for your Practice!”

## Helping To Care For The Products We Create With Innovative Cleaning And Care Solutions

We've always been dedicated to providing our clients, and their patients, with superior dental appliances. We are equally committed to ensuring that these appliances can be properly cared for. For years, we've been including a sample of our exclusively formulated “Spray'n Fresh Dental Appliance Cleaner” with all our splints, night guards, orthotics and sleep appliances.

Spray'n Fresh Dental Appliance can be easily reordered from our newly created website at:  
[www.klauszdental.com](http://www.klauszdental.com)



## How to Increase the Bond Strength of Zirconia Based Restorations

The use of zirconia based dental restorations has increased in recent years due to their superior aesthetic appearance and metal-free structure. The clinical success of fixed ceramic restorations seems to be strongly dependent on the cementation procedure. Zirconia based restorations can be bonded to teeth structures by both conventional and resin cements; however, dual cure resin cements are preferred because they have the advantages of marginal seal, good retention, and improvement of fracture resistance of ceramic materials.

Zirconia based restorations cannot be acid etched due to their lack of silica and glass, so sandblasting is the preferred surface-roughening method.

Here are some suggested methods to treat zirconia based restorations prior to bonding to improve restoration retention.

### Method 1: If Sandblasting (Micro-Etching) Is available

Step 1: Sandblasted with 50  $\mu\text{m}$   $\text{Al}_2\text{O}_3$  particles from a distance of 10 mm perpendicular to the specimen surface at a pressure of 2.5 bar for 15 s.

Step 2: Coat zirconia surface with Z-PRIME Plus (Bisco Canada 1-800-667-8811) or Monobond Plus (Ivoclar Vivadent Canada 1-800-263-8182) and allowed to air dry

Step 3: Cement with Preferred Dual Cure Resin Cement



### Method 2: If Sandblasting (Micro-Etching) Is Not available

Step 1: Clean zirconia surface with ZirClean Restoration Cleaner (Bisco Canada 1-800-667-8811) or Ivoclean (Ivoclar Vivadent Canada 1-800-263-8182)

Step 2: Coat zirconia surface with Z-PRIME Plus (Bisco Canada 1-800-667-8811) or Monobond Plus (Ivoclar Vivadent Canada 1-800-263-8182) and allowed to air dry

Step 3: Cement with Preferred Dual Cure Resin Cement



Helping our clients achieve the very best clinical outcomes, is just another way we are, "Working Harder and Smarter for your Practice!"



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[www.SleepDisordersDentistry.com](http://www.SleepDisordersDentistry.com)

Working with others to provide our clients with the very best in Continuing Education is just another way we are, "Working Harder and Smarter for your Practice!"



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