

# Finishing & Polishing.

A TCS STEP BY STEP GUIDE



# TCS Resins

TCS offers three resilient resins, **Unbreakable™**, **iFlex™**, and **Karadent™** as seamless solutions for a variety of cases. Our economical solutions for missing teeth are biocompatible, monomer-free and hypoallergenic.



The Modern Fit

**BPA Free,  
Monomer Free  
Hypoallergenic**

## Unbreakable™

Unbreakable™ is an extremely resilient, high performance nylon thermoplastic popular for its unbeatable strength and exceptional memory. A guaranteed unbreakable material that allows for a highly durable, lightweight, and aesthetic removable flexible partial.

*Unbreakable™ can be repaired with re-injection. Small repairs, air bubbles, clasps and 1 tooth additions can be made with the Hot Air Welder or the JP90 injector.*



## iFlex™

iFlex™ is a highly translucent polyolefin thermoplastic known for its ability to finish and polish effortlessly. Among its many benefits, iFlex™ is clinically unbreakable and has minimal water absorption, which lends itself to being stain resistant.

*iFlex™ can be repaired with re-injection. Small repairs, air bubbles, clasps and 1 tooth additions can be made with the Hot Air Welder or the JP90 injector.*



## Karadent™

Karadent™ is a semi-rigid, microcrystalline polymer thermoplastic incredibly versatile with its many possibilities; full dentures, semi-flexible partial dentures, clear clasps, frameworks, and nightguards. Karadent™ serves as an ideal upgrade from acrylic dentures due to its stability, strength, and ability to maintain its volume without shrinkage; allowing for an exceptional fit. In addition, Karadent™, like iFlex™, absorbs minimal water making it stain resistant.

*Karadent™ can be relined with acrylic and repaired with re-injection. Small repairs, air bubbles, clasps and 1 tooth additions can be made with the Hot Air Welder or the JP90 injector.*



*Karadent is only available in: Standard Pink, Dark Pink and Clear.*

### Shades



Light Pink | Standard Pink | Light/Dark Pink | Dark Pink | Natural | Clear

# Finishing & Polishing

Follow these simple recommended steps as a guide to properly finish and polish TCS removable appliances. Keep in mind that different materials require different attention to: speed, pressure, times and temperature, etc. This guide includes tips and techniques proven to achieve the best fit and shine.

For more technical videos  
visit our YouTube Page: TCS Dental

 **YouTube:**  
[www.youtube.com/user/tcsdentalinc](https://www.youtube.com/user/tcsdentalinc)

## Recommended Tools.

Below are the tools used in this guide that we recommend using for finishing and polishing thermoplastic appliances.

### Finishing Tools

- Econo Cutter (4203-01)
- Rubberized Abrasive Thin (4304-01)
- Pink Grinding Wheels (4205-01)
- Green Mounted Stones (4501-01)
- Pink Zirconia Burs (5045Z & 5035Z)
- Brown Rubber Wheels (4503-01)
- Brown Rubber Points (4510-01L)
- Mini Fuzz Buffs (4222-01)

### Polishing Tools

- Turbo Buff (4208-01)
- Polycril (4298-01)
- Brown Tripoli (4206-01)
- Rag Buff (4207-01)
- Green Hi-Shine (4209-02)
- iShine (4220-01)

**To purchase please contact an authorized distributor.**

List of authorized distributors available at:

**[www.tcsdentalinc.com](http://www.tcsdentalinc.com)**

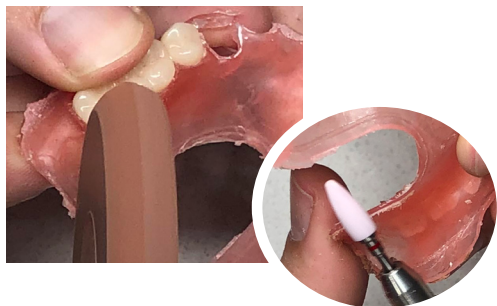
# Finishing TCS Resins

## Step-by-Step Guide.

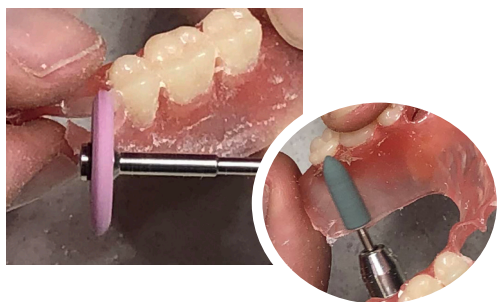
**Note:** Finishing an Unbreakable™ or a Karadent™ appliance requires higher speed and more pressure than finishing an iFlex™ restoration.



**1** Use the Econo Cutter to cut the sprues.



**2** Use a Rubberized Abrasive or a Pink Zirconia Bur to trim the edges and remove excess material.



**3** Use a Pink Grinding Wheel to create anatomy and make major reductions.

Tip: Round the edges of the Pink Grinding Wheel with a truing stone. Use continuous movement. Option to use a Green Mounted Stone or a Pink Zirconia Bur.



**4** Use a Pink Zirconia Bur to adjust the appliance to fit on the model.



**5** Use a Mini Fuzz Buff to remove major scratches and start leaving a smooth surface.



**6** Use a Rubber Wheel or Rubber Point to seal the surface of the partial. This is a **KEY** step to achieving a high shine in the polishing stage.

Tip: Round the edges of a Brown Rubber Wheel with a truing stone. Use continuous movement.



### A Must Have Tool

Can be used in steps 2, 3, and 4.  
Absorbs heat which prevents the material from clogging/burning.  
Can be used with a hand piece or a lathe.  
Available in Coarse (5045Z) and Fine (5035Z).

# Polishing TCS Resins

## Step-by-Step Guide.

**Note:** Polishing an Unbreakable™ or a Karadent™ appliance requires higher speed and more pressure than polishing an iFlex™ restoration.

**Separating your polishing in sections is advised to cover all areas thoroughly.**



- 1** Pumicing: Soak a TCS Turbo Buff in water prior to use. Mix Polycril with water until it reaches a muddy consistency. Thoroughly apply Polycril to the partial every 2 seconds. Use continuous movement.

Tip: Do not apply too much pressure as it will grind away the material.



- 2** Tripoli: Apply Tripoli to a TCS Rag Buff until it turns brown with Tripoli. Use continuous movement.

Tip: Keeping a bowl of water near your station is recommended to dip the appliance in water while completing this step.



- 3** Polishing: Apply the recommended polishing paste to a Rag Buff. The color of paste should barely show on the buff. **Use one Rag Buff per paste, do not mix pastes or Tripoli to the same Rag Buff.**

Tip: Adding too much paste can make the appliance appear opaque instead of shiny. Separating your polishing in sections is essential for this step.

### For Best Results

#### Unbreakable™

Polish with Green Hi-Shine paste on high speed with moderate pressure.

#### Karadent™

Polish with Green Hi-Shine paste on high speed with moderate pressure.

#### iFlex™

Polish with iShine paste on medium-high speed with very light pressure.



# TCS

An ISO 13485 Certified Company

TCS is a dental manufacturing company dedicated to providing dental laboratories with exceptional quality materials, equipment, and hands-on training courses that are accessible and reliable. At the core of our brand, we believe that one of the key components to creating successful removable appliances is through forming strong partnerships, because for TCS, manufacturing is more than just a business, it is a collectivist culture.



2000

FOUNDED IN CA, USA

3

GENERATIONS

70+

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Contact us for  
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## Optimize your success with TCS

### YouTube Channel

Subscribe to view short clips that will help with production and quality. Playlists include: Quick tips, design library, short videos, and equipment videos.

**YouTube Channel: [tcsdentalinc](https://www.youtube.com/tcsdentalinc)**

### Text Support.

Register your phone for quick text support.

**Text your name, lab's name, city and state to (562) 241-1225.**

### Hands-On Training.

Attend our comprehensive training course to learn every step needed to fabricate a flexible partial. Courses cover the importance of case design, quick finishing, high shine polishing, and everything in between.

**Contact [sales@tcsdentalinc.com](mailto:sales@tcsdentalinc.com) | (866) 426-2970.**

### Promote Your Removable Department.

Grow your removable department by utilizing our marketing tools; digital media pre-made posts and free printed promotional material.

**Contact [pascui@tcsdentalinc.com](mailto:pascui@tcsdentalinc.com)**

TECHNICAL QUESTIONS?

*Text us! (562) 241-1225*





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