

KeySplint Soft™ Finishing and Polishing Recommendations¹

NOTE: Keystone Industries recommends polishing only the edges and occlusal surfaces of a KeySplint Soft night guard or splint. Polishing the intaglio surface can adversely impact the fit of the printed device.

SUPPORT REMOVAL



PROCESS

 **TIME: APPROX. 2 MIN**

- Grind supports down with a Scotch-Brite Dremel bit
- Optional: you can take steps to remove remaining printing lines/texture from print with an Abrasion Disc sanding wheel (Fine Blue)
- This process is fast and can eliminate any trace of scaling on the edges and the occlusal surfaces prior to polishing (below). This makes polishing process quicker, more consistent, and with limited defects

MATERIALS

- Scotch-Brite Medium Wheel (1670092) – removal of support pin marks
- Fine Blue Abrasion Disc (1670099) - elimination of remnant print lines and residual material from surface

POLISHING



STEP 1: PUMICE

 **TIME: APPROX. 2 MIN**

- Fill lighted shield tray with pumice
- Add sufficient water so that the pumice is more than damp and slightly flowable to make reapplication of pumice during polishing easier
- Use the 4x42 cloth wheel surface to reach all edges and occlusal surfaces.
- Dampen the wheel with some water before pumice application for optimal results
- Coat the part in pumice and begin to finish the occlusal surface. You will feel some resistance of the pumice between the part and wheel, and as the resistance lessens, the process is nearing completion
- Do not apply too much pressure. Firm and consistent pressure is recommended for consistent and predictable results

MATERIALS

- Course pumice, or synthetic pumice substitute
- 4x42 cloth wheel (1180170) - larger and flatter surface area is best

¹There are a variety of polishing methods and materials that effectively can finish and high-shine polish a KeySplint Soft device. In this protocol, Keystone Industries describes several steps and materials to be used to achieve a high-shine finish on printed KeySplint Soft devices. Keystone Industries is grateful for the helpful guidance and suggestions made by Protec Dental Laboratory in Vancouver, Canada in assisting Keystone to develop these polishing recommendations.



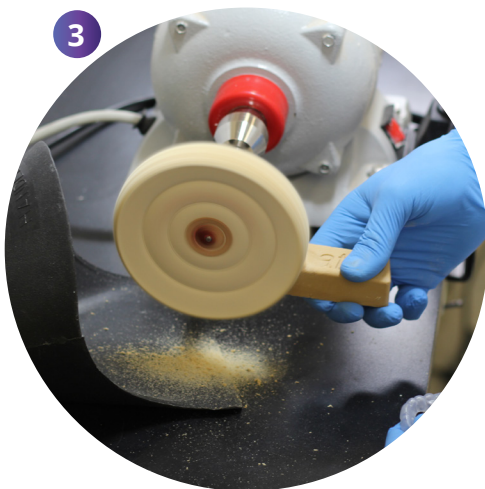
STEP 2: PRE-POLISH

 **TIME: APPROX. 2 MIN**

- Remove pumice wheel from prior step, clean pumice from work area and from the printed part (brief high-pressure steam cleaning works well)
- Install 5x45 cloth wheel dedicated to Tripoli material
- Apply Tripoli compound to the wheel until fully coated and repeat as necessary through the process
- Begin to pre-polish the device by applying firm pressure as you pre-polish the entire occlusal surface, looking to achieve a uniform finish with slight shine
- Re-apply Tripoli compound and perform one final pre-polishing of the surface, applying light pressure

MATERIALS

- Tripoli finishing compound (1660030)
- 5x45 cloth wheel (1180190) - larger and flatter surface area is best



STEP 3: HIGH-SHINE POLISH

 **TIME: APPROX. 2 MIN**

- Remove Tripoli wheel from prior step, clean Tripoli residue from the printed part (brief high-pressure steam cleaning works well)
- Install new 5x45 cloth wheel dedicated to high-shine materials
- Apply high-shine polishing compound to the wheel until fully coated and repeat as necessary through the process
- Begin to polish the device by applying firm pressure as you polish the entire occlusal surface, looking to achieve a uniform finish with a high shine
- Re-apply high-shine polishing compound and perform one final polishing of the surface, applying light pressure

ALTERNATIVE STEP 3

 **TIME: APPROX. 3 MIN**

- Instead of using the a high-shine compound bar, you can use something like a High-Shine Emulsion Liquid
- Rather than applying this material to the wheel, you apply the liquid to the part with approximately 4 drops per side of the device and spread the liquid over the entire surface
- Polish the device as recommended above

MATERIALS

- Polishing options:
 - White or light beige polishing compound (Beige 90g polishing bar 1670110)
 - Other available light or white dental high-shine polishing compounds
 - High-Shine Emulsion Liquid (1670200)
- 5x45 cloth wheel (1180190) - larger and flatter surface area is best



4

STEP 4: HIGH-GLOSS BUFF (OPTIONAL)

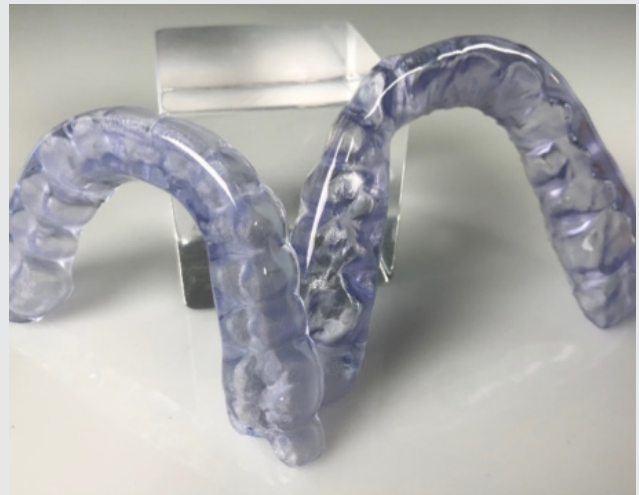
 TIME: APPROX. 1 MIN

- Remove polishing wheel from prior step, clean residue from the printed part (brief high-pressure steam cleaning works well)
- Install new cotton buff wheel
- Apply the High-Shine Pink compound to the wheel until fully coated and repeat as necessary through the process
- Begin to mirror finish the device by applying steady pressure
- Should have a spectacularly bright shine

MATERIALS

- High-Shine Pink 150 g (1670546) for mirror finish
- High-Shine cotton buff wheel (1670140 or 1670510)

HIGH-GLOSS BUFF SPLINTS





PURCHASING POLISHING MATERIALS

Keystone Industries will be assembling and offering a KeyPolish Kit for polishing KeySplint Soft. Until the kit is ready, Keystone Industries provides all materials and items needed for a perfect high-shine polish of KeySplint Soft through your preferred distributor.

MATERIALS

SUPPORT REMOVAL

| ITEM NAME | ITEM NO. | PHOTO |
|---------------------------------|----------|---|
| Miniature Scotch Brite - Medium | 1670092 |  |
| Abrasion Discs - Fine Blue | 1670099 |  |

POLISHING

| ITEM NAME | ITEM NO. | PHOTO |
|--|--|---|
| Course Grit Pumice | 1700010 |  |
| Muslin Buffs | 1180190 for 5X45 & 1180170 for 4X42 |  |
| Tripoli Pre-Polishing Compound | 1660030 |  |
| Beige 90g Polishing Bar | 1670110 |  |
| Wooden "Acrylic-High-Shine Polishing" Cotton Buff | 1670140 or 1670510 |  |
| High-Shine Pink 150 g | 1670546 |  |

Miniature Scotch Brite - Medium Red: <https://dental.keystoneindustries.com/product/hatho-miniature-scotch-brite/>

Habras Discs -Blue <https://dental.keystoneindustries.com/product/hatho-habras-discs/>

Course Grit Pumice <https://dental.keystoneindustries.com/product/laboratory-pumice-powder/>

Muslin Buffs <https://dental.keystoneindustries.com/product/muslin-buffs/>

Tripoli Pre-Polishing Compound <https://dental.keystoneindustries.com/product/tripoli-polishing-compound/>

Poly Beige 90g Polishing Bar <https://dental.keystoneindustries.com/product/hatho-polishing-compounds/>

Wooden "Acrylic-High-Shine Polishing" Cotton Buff <https://dental.keystoneindustries.com/wp-content/uploads/2015/10/Hatho-Acrypol-Polishing-Kit.jpg>

Polistar Pro Pink 150 g <https://dental.keystoneindustries.com/wp-content/uploads/2015/10/Hatho-Acrypol-Polishing-Kit.jpg>