PRODUCT DESCRIPTION:
SmarTemp® Original and SmarTemp Dual Cure® are radiopaque, two-component, composite resin-based, provisional crown & bridge materials. SmarTemp Original is a self-curing material, and comes in a white cartridge. SmarTemp Dual Cure is both self-cured and light-curable (when removed from the mouth), and comes in a black cartridge. Both versions offer easy handling and minimal shrinkage, and both may be adjusted and polished with rotary instruments after final cure. SmarTemp products deliver high flexural strength for long span bridges, and excellent abrasion resistance to maintain proper occlusion, vertical dimension and interproximal contact during the provisional phase of treatment.

INDICATIONS:
SmarTemp products are indicated for the fabrication of provisional resin inlays, onlays, laminate veneers, crowns or bridges.

CONTRAINDICATIONS:
SmarTemp should not be used on patients with known sensitivity to methacrylates. If signs of tissue irritation such as redness appear, stop using immediately and consult a physician. Avoid contact with extra-oral soft tissues, skin or eyes. Contaminated skin or mucosa should be immediately wiped clean with alcohol, and then rinsed thoroughly with copious water. If eye contact should inadvertently occur, rinse the eye thoroughly with copious amounts of water and consult an ophthalmologist. Ingredients should not be swallowed. Use only as directed.

PRETREATMENT CONSIDERATIONS:
• All resins produce heat during polymerization. The amount of heat generated by a single crown is negligible. However, to avoid tissue irritation, provisional bridges containing a large volume of SmarTemp should be fabricated on a model outside of the mouth, or removed from the mouth well before the temperature rise is uncomfortable to the patient.
• SmarTemp’s setting properties are affected by temperature. If the material is stored in a refrigerator, it should be allowed to warm to room temperature before use.
• To permit removal of the provisional restoration during preparation on prepared teeth, all preparations should be lightly lubricated with water-soluble lubricating gel or glycerin. Prep lubrication is essential to avoid “lock-on”, especially if the preparation contains a composite resin core material, or if it has been sealed with a resin bonding agent (such as Parkell’s Brush&Bond®).
• To permit removal of the provisional restoration during fabrication on prepared teeth, all prep's should be lightly lubricated with water-soluble lubricating gel or glycerin before using resins like Smartemp. Prep lubrication is essential to avoid “lock-on”, especially if the preparation contains a composite resin core material, or it has been sealed with a resin bonding agent (such as Parkell’s Brush&Bond®), or has been desensitized with a resin-based, glutaraldehyde-containing desensitizer (such as Gluma®, MicroPrime G®, etc.).
• Lubricants should be removed from the prepared tooth using acetone or ethyl alcohol prior to cementation of the provisional.

FABRICATING THE PROVISIONAL RESTORATION:

1. Start timer before beginning to fill the matrix.
2. For consistent results, use a digital timer and strictly adhere to the timing recommendations.
3. Create a pre-operative matrix using an impression, crown form, or plastic vacuum-form. If using SmarTemp Dual Cure with a vacuum-formed clear plastic matrix, make sure to shield the material from the overhead light, to avoid premature curing.
4. To assure an accurate 1:1 mix, follow the “double bleed” procedure (described below) before each use of the cartridge.
   a. Insert the cartridge into a “DS-50 (1:1 / 2:1)” impression gun (S343).
   b. Remove and discard the blue sealing cap or used mixer from the cartridge, and express out a small amount of material through both round orifices onto a pad (Fig A).
   c. Affix a mixing tip, then bleed the cartridge (Fig A). Proceed to step 3.
5. Start the timer and fill the matrix former by expressing SmarTemp directly from the cartridge.
6. Seat the filled matrix over the teeth in the mouth when the timer reads “20 seconds”.
7. Wipe the slippery oxygen-inhibited layer off of the patient’s teeth and the exterior and interior of the provisional using acetone or ethyl alcohol saturated onto a small cotton pledget.
8. Approximately 4 minutes after removing temp from mouth (when timer reads “6 min 15 sec”), temp should be ready for finishing.
9. When the timer reads “2 minutes, 15 seconds” check the consistency of excess resin at the borders of the matrix. If it is rubbery, remove the provisional restoration from the mouth. If it is not yet rubbery, check the consistency every 5 seconds until it achieves a rubbery state and then remove it. If the restoration remains on the teeth when the matrix is withdrawn, gently remove it with a hand instrument or hemostat.
10. If using SmarTemp Original, allow the provisional restoration to complete curing outside the mouth for approximately 4 more minutes, either on the bench or in lukewarm water. Avoid hot water, as it may cause distortion.
11. If using SmarTemp Dual Cure, you may significantly accelerate the curing time by exposing the provisional restoration to a standard dental curing light (blue light with a wavelength between 450nm and 470nm) for 20 seconds per surface. Otherwise, the material will self-cure in approximately 4 more minutes.
12. If SmarTemp Dual Cure is light-cured:
   - light cure at ≥ 800 mW/cm2 at 450-470nm
   - for 20 seconds per surface and finish.
13. If using SmarTemp Original, allow the provisional restoration to complete curing outside the mouth for approximately 4 more minutes, either on the bench or in lukewarm water. Avoid hot water, as it may cause distortion.
14. If using SmarTemp Dual Cure, you may significantly accelerate the curing time by exposing the provisional restoration to a standard dental curing light (blue light with a wavelength between 450nm and 470nm) for 20 seconds per surface. Otherwise, the material will self-cure in approximately 4 more minutes.
15. Wipe the slippery oxygen-inhibited layer off of the patient’s teeth and the exterior and interior of the provisional using acetone or ethyl alcohol saturated onto a small cotton pledget. Trim and polish the provisional.
16. If the prep is to be sealed (for example with Parkell’s Brush&Bond), apply and cure it now.
17. Cement the provisional using the desired provisional luting product. If using a resin provisional luting product such as Parkell’s esthetic provisional resin cement E.T.C™, make sure to lubricate any resin cores or resin coatings before cementation to avoid resin “lock-on”.
18. Leave the used mixing tip on the cartridge to seal it until the next use.
MAKING ADDITIONS TO SMARTEMP PROVISIONAL RESTORATIONS:
Corrections made immediately after fabrication may be made using more SmarTemp, light-cured flowable composite, or conventional composite, if the oxygen-inhibited layer has not been removed. Additions made after the provisional restoration has been in the mouth for a period of time will bond best if a thin layer of the restoration is first removed and the surface is primed with a “resin to resin adhesive” such as Parkell’s Add&Bond™.

TROUBLESHOOTING SMARTEMP:
1. Product does not set: Make sure you double-bleed the cartridge before each use. Also check the expiration date.
2. Product leaves a slick coating on the tooth or the provisional: This is normal behavior. See step 9 above.
3. Product deforms in the matrix: Provisional removed from matrix too soon. Follow timing recommendations above. Or the material was cold. Allow to come to room temperature before use.
4. Patient feels material heating up: Do not leave patient alone during use of SmarTemp. Tell patient to raise hand when elevation of temperature is felt, and remove provisional immediately.

STORAGE:
Refrigeration is preferred to prolong shelf-life. However, for optimal setting characteristics, SmarTemp must warm to room temperature before use.

TIPS FOR DENTAL PRACTITIONERS FOR CROSS-CONTAMINATION CONTROL:
Apply disposable barrier sleeves/wraps over multiple-use dental dispensers before use with each patient; use new, uncontaminated gloves when handling multiple-use dental dispensers; utilize dental assistants to dispense material for the dentist; avoid contact of the reusable parts (e.g., the body of the multiple-use dental dispenser) with the patient’s mouth; do not reuse the multiple-use dental dispenser if it becomes contaminated; do not reprocess a contaminated multiple-use dental dispenser by using chemical wipes or disinfectants; do not immerse multiple-use dental dispensers in a high level chemical disinfectant, as this may damage the dispenser and the material contained in the device; do not sterilize multiple-use dental dispensers, as this may damage the material contained in the device.

EXPLANATION OF SYMBOLS USED
- Follow instructions for use
- Keep away from sunlight
- Manufacturer
- Use-by data (expiration)
- Batch code
- Catalogue / stock number
- Package contents
- Do not use if package is damaged
- Single use only
- 50 ml Split Cartridge / Paste

HOW SUPPLIED:
High Efficiency, Split 50 ml (89 g) Automix Cartridges with blue-base pointed mixing tips (Tip refills 30/pkg. - S344):
• Ultra-light Shade (approx. A1): S337 (Original)
• Light Shade (approx. A2): S340 (Original) and S338 (Dual-Cure)
• Medium Shade (approx. A3.5): S341 (Original)

WARRANTY AND TERMS OF USE: