

Therm-O-Flex®

Processing Technique
For
Dental Laboratories

Advanced Dental Products, Inc.

Therm-O-Flex® Advantage

- **Therm-O-Flex® is a unique thermoplastic for the fabrication of dental treatment appliances and for protection of teeth.**
- **Therm-O-Flex® is conveniently press-packed and heat cured without special equipment.**
- **In its processed state, this unique polymer is semi-elasticized with memory to prevent breakage or permanent distortion and exhibits exceptional strength.**
- **Therm-O-Flex® appliances are crystal clear and provide unsurpassed comfort.**
- **Therm-O-Flex® appliances require less chair-time for the dentist and rarely need adjustment.**
- **Therm-O-Flex® softens in warm water and in the oral cavity, thus conforming more readily to tooth contours.**

Overview

- What you need from your dentist
- Model preparation
- Waxing
- Investing
- Boil-Out
- Packing
- Curing
- Deflasking
- Finishing
- Delivery

What you need from your dentist

- Prescription must specify type of appliance
- Maxillary and mandibular stone models or good impressions
- Bite registration in centric relation at the opening desired for the appliance

Model Preparation

- Check for bubbles and voids on master model
- Duplicate master model to provide working model
- Articulate duplicate model and opposing cast according to bite registration



Waxing

- Wrap the coronal portion using two layers of base plate wax engaging the undercuts
- Add enough layers of soften wax to fill the occlusal space when the articulator is in the closed position



Waxing

- Close articulator and slide into excursions
- Wax-up should include the impression of all opposing teeth
- Peripheral borders should have approximately an 1/8 inch roll
- Seal borders and flame lightly



Investing

- Use Vaseline or separating medium on all surfaces of the stone model
- Mix plaster and buff stone 60:40
- Submerge cast and wax pattern into stone covering everything up to 1/8 inch from occlusal surface
- Apply separating medium to exposed gypsum after setting
- Complete flasking process



Boil-Out

- Place flask in boiling water in order to soften, not liquefy, base plate wax
- Separate flask and remove as much wax as possible
- Place flask halves into boiling water and scrub with detergent
- Rinse thoroughly with clear boiling water
- Allow to dry and apply separator
- Tip flask on edge and allow separator to dry



Dual-Guard

- Place a plastic sheet on the occlusal surface of matrix
- Soften a ½ inch wide strip of base plate wax and press on top of plastic and into occlusal space (spacer for hard acrylic to be packed after Therm-O-Flex® material)



Packing

- Therm-O-Flex® mixing ratio by volume:

**3 parts powder
to
1 part liquid**

- Always use separate measuring containers for ethyl and methyl methacrylate



Packing

- Pour polymer into monomer
- Stir only until powder is wet. This will prevent formation of air bubbles
- Therm-O-Flex® material is ready to pack when it no longer feels tacky



Packing

- Place plastic on occlusal before packing Therm-O-Flex® material
- Close the flask and trial pack at a maximum of 500 psi
- Open the flask and remove flash and plastic for Therm-O-Flex® appliances only
- Close the flask and final pack at 2500 psi



Packing Dual-Guard

- After Therm-O-Flex® has been final pressed (2500 psi), open flask and remove plastic sheet and wax spacer
- Pack hard methyl methacrylate into the occlusal side of the mold. Place two sheets of plastic between Therm-O-Flex® and hard acrylic. Trial pack at 500 psi
- Open flask and remove flash and the two plastic sheets. Close flask and final press 2500 psi
- Transfer flask to rigid clamp or press



Curing

- Preferred method of curing is a minimum of 5 hours at 165°F
- Fast cure, 15 minutes in press followed by insertion into boiling water for a minimum of one hour

Deflasking

- Remove cast with appliance on the model from the flask
- Rearticulate and refine occlusion
- Place cast in hot water approximately 20 seconds and remove appliance



Finishing

- Finish with standard acrylic burs
- Finish using duplicate models to check for extensions and undercuts
- Polish on a pumice lathe using medium course pumice followed by a high luster polish



Delivery

- Return appliance to dentist with master models intact
- Appliance may appear cloudy for a period of approximately 48 hours due to water moisture
- Heat sealed bags will cause the appliance to appear cloudy for a longer period of time
- Include patient care card along with new appliance



Technical Questions and Ordering
Information For
Therm-O-Flex®

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Be sure to ask about our other products!