Imprint™ II Garant™ Monophase
Impression Material System

Technical Product Profile
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Product Information

Imprint™ II Garant™ Monophase Impression Material is a hydrophilic vinyl polysiloxane dental impression material designed for making precise crown and bridge and denture impressions. It is formulated to meet the demands of the monophase impression technique in a custom, full arch, quadrant and double arch tray. The one minute oral working time allows the dentist to syringe one to four units. It may be used in cases where there are more than four adjacent preparations, provided the tray is seated within 1 minute from the start of oral syringing.

Indications

- Recommended for 1-4 units using custom, full arch, quadrant and dual arch trays.

- Imprint II Garant Monophase can be used when the tray can be seated within 1 minute from the start of oral syringing.
Physical Properties

- Tray Filling Working Time: 2 minutes
- Oral Syringe Working Time: 1 minute
- Oral Setting Time: 4 minutes
- Strain in Compression: 2.3%
- Mixed Consistency: 37 mm
- Tear Strength: 601 g/mm
- Pour Time: 30 minutes

A Summary of Imprint™ II Garant™ Monophase Impression Material

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Mix System</td>
<td>Easy to use</td>
</tr>
<tr>
<td>1 minute oral working time</td>
<td>Patient comfort</td>
</tr>
<tr>
<td>with a 4 minute set time</td>
<td>Less chair time</td>
</tr>
<tr>
<td>Rigid material</td>
<td>Better impressions</td>
</tr>
<tr>
<td>Dimensionally stable</td>
<td>Accurate impressions</td>
</tr>
<tr>
<td>Hydrophilic</td>
<td>Better stone cast (Chai et al., 1991)</td>
</tr>
<tr>
<td>No taste or odor</td>
<td>Patient comfort</td>
</tr>
<tr>
<td>Thixotropic</td>
<td>Easy handling</td>
</tr>
<tr>
<td></td>
<td>Better impressions</td>
</tr>
</tbody>
</table>
Technique Guide

**3M ESPE**

**MONOPHASE TECHNIQUE**

**Imprint™ II Garant™ Monophase Impression Material System**

Fill the tray with 3M™ ESPE™ Imprint™ II Monophase Material.

Syringe monophase impression material around the clean, dry tooth preparation(s). **Intraoral Working Time:** 1 minute.

Slowly seat the tray in the mouth. **The tray must be seated within 1 minute of the start of oral syringing and within 2 minutes of the start of tray filling.**

Immobilize the tray using passive pressure. **Oral Setting Time:** 4:00 minutes.

Remove the impression, rinse, dry and disinfect. The stone model may be poured after 30 minutes.

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3M ESPE Customer Hotline 1-800-634-2249

Please refer to instructions for more detailed information as well as precautionary and warranty information.

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Disinfection

Impressions made using Imprint II Garant Monophase impression material may be disinfected using any liquid disinfectant. VPS impression materials have been shown to be dimensionally stable after 60 minutes in 2% acidic glutaraldehyde (Davis & Powers, 1994).

Recommendations for Cast/Model Pouring

Impressions made using Imprint II Garant Monophase impression material may be poured 30 minutes following disinfection. Because it is hydrophilic, surfactants are not required.

If surfactants are used, it is important to blow dry the impression thoroughly to ensure that no puddles or pools of liquid are present when the dye stone is poured.

3M ESPE Garant Dispenser

When compared to hand spatulated or hand mix impression materials, auto-mix systems offer many recognized benefits including:

- Ease of use, less mess, less waste (Craig, 1985)
- A consistent, bubble-free mix (Chong et al., 1991)
- Unnecessary glove removal
- Intra-oral delivery directly from the auto-mix tip

Imprint II Garant Monophase impression materials can be used with the Garant Dispenser. Listed below are two important features:

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>More Extrusion Power</td>
<td>Less hand fatigue</td>
</tr>
<tr>
<td>100% Steam Autoclaveable</td>
<td>Simplified and improved infection control</td>
</tr>
</tbody>
</table>

Disinfection and Sterilization

The Garant Dispenser is 100% autoclaveable. It is no longer necessary to remove the plunger before disinfecting the dispenser. The dispenser is detergent safe and requires no lubrication. It may be disinfected using liquid sterilants or may be sterilized using a steam autoclave.

Caution: Do not sterilize using dry heat or chemical vapor as damage to the dispenser may result.
Cartridge Design

Imprint™ II Garant™ Monophase Impression Material is used with the Garant Dispenser. The cartridge offers:

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual Port Mix Tip</td>
<td>Virtually eliminates plugging</td>
</tr>
<tr>
<td>Reuseable Cartridge Cap</td>
<td>Improved infection control</td>
</tr>
<tr>
<td></td>
<td>Compact storage</td>
</tr>
<tr>
<td>New Intraoral Tip</td>
<td>Increased length and a smaller orifice for better intra-oral access</td>
</tr>
<tr>
<td>Improved Cartridge Labels</td>
<td>Working/setting times, expiration date and lot number communicated clearly</td>
</tr>
</tbody>
</table>

Cartridge Labels

Imprint II Garant Monophase impression material cartridge label is designed to convey critical product information clearly including:

- Working time for oral syringing
- Oral setting time
- Expiration date
- Lot number
Questions and Answers

Why do some dentists prefer monophase versus a heavy body/light body technique?

- Reduced inventory - only one material required
- Less mix tip waste - only one mix tip required

What is the difference between Imprint™ II Garant™ Quick Step Impression Material and Imprint™ II Garant™ Monophase Impression Material?

Imprint II Garant Quick Step impression material is a fast setting heavy body/light body impression material. Quick Step is indicated for fast procedures due to the short oral working time of 40 seconds. Although the instructions state that Quick Step may be used for up to three adjacent units, we caution the dentist not to exceed the oral working time. Inaccurate impressions may occur if the oral working time is exceeded.

Imprint II Garant Monophase impression material is recommended for 1-4 units. It can be used to syringe more than four units when the tray can be seated within 1 minute from the start of oral syringing.
Instructions for Use

Imprint™ II Garant™ Monophase
Vinyl Polysiloxane Monophase Impression Material

Imprint II Garant Monophase impression material, manufactured by 3M ESPE, is a hydrophilic vinyl polysiloxane dental impressioning material designed for making precise crown and bridge and denture impressions. It is especially formulated to meet the demands of the monophase impressioning technique. Imprint II Garant Monophase is ideally suited for impressions involving 1-4 units using quadrant and double bite trays. Imprint II Garant Monophase impression material can be used as the tray material with Express™ light body impression material, manufactured by 3M ESPE, as the syringeable material.

<table>
<thead>
<tr>
<th>Mouth</th>
<th>Total Working Time</th>
<th>Approximate Removal Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tray Material @ 23°C (73°F)</td>
<td>≤ 2 Minutes</td>
<td>4 Minutes</td>
</tr>
<tr>
<td>@ 33.3°C (92°F)</td>
<td>= ≤ 1 Minute</td>
<td></td>
</tr>
</tbody>
</table>

IMPORTANT! PLEASE NOTE:

Bleed the cartridge before each use.

As with any rigid setting impression material, if undercuts or gingival recession are noted, blocking-out may be required to prevent the material from “locking” onto tooth structure. Failure to do so may make tray removal difficult, or cause extraction of natural teeth or prosthesis.

Avoid surface contact with chemicals known to inhibit the set of vinyl polysiloxane impression materials (e.g. acrylic and methacrylate residues, latex rubber and sulfur compounds). If acrylic and methacrylate residues are present, clean the affected tooth surface with isopropyl alcohol before making the impression.

To avoid inhibition caused by custom temporary materials, the final impression should be made before fabricating the provisional crown or bridge. If contamination from latex rubber or sulfur is suspected, rinse the area with an aqueous solution of hydrogen peroxide before making the impression.

Once the tray is seated in the mouth, Imprint II Garant Monophase impression material requires a 4 minute oral set. It is not necessary to add any unused work time to the 4 minute oral set time.

The stone model may be poured 30 minutes following disinfection of the impression. Imprint II Garant Monophase impressions are very stable and may be poured up two weeks post polymerization.
Monophase Impression Technique

Recommended Materials: Imprint™ II Garant™ Monophase Impression Material

1. Select or prepare a rigid tray of sufficient size and wall height to accommodate 2-3 mm thickness of impression material surrounding the teeth.

2. Brush a thin coat of VPS Tray Adhesive manufactured by 3M ESPE on the tray and allow to air dry a minimum of 5 minutes.

3. Prepare the teeth, isolate and place retraction cord(s)

4. Using firm full strokes of the dispenser, fill the entire adhesive-coated tray* with Imprint II Garant Monophase impression material, while keeping the tip immersed in the dispensed material to avoid entrapping air.

*The maximum tray filling time is 2 minutes for Imprint II Garant Monophase Impression Material

5. For syringing around prepared teeth, dispense Imprint II Garant Monophase impression material into an intraoral syringe. Alternatively, syringing may be accomplished directly from the cartridge by attaching a 3M ESPE Intraoral Tip*, manufactured by 3M ESPE, to the mix tip.

*Using moderate pressure, push the blunt end of the intraoral tip into the mix tip. A click will be heard when the intraoral tip is locked into position.

6. Remove retraction cord(s) and inject the Imprint II Garant Monophase impression material around the clean, dry tooth preparation(s). Syringe with a stirring motion, keeping the tip immersed to avoid entrapping air and to ensure complete coverage of the prepared surfaces.

7. Seat the tray being careful to avoid contact of the teeth with the tray. Note: The tray must be seated within 1 minute from the start of oral syringing.

8. Using firm passive pressure, immobilize the tray in the mouth for a minimum of 4 minutes.

9. Apply downward pressure along the periphery of the tray to break the seal of the impression and remove the impression from the mouth.

10. Visually inspect the impression for evidence of defects or tears. Thoroughly examine and explore the sulcus of prepared teeth and surrounding denition and remove any residual impression material remnants.

11. Immediately rinse the impression under water and blow dry.

12. The impression may be disinfected by using any liquid disinfectant. Immediately following disinfection, rinse the impression in water and blow dry.

13. The stone model may be poured 30 minutes following disinfection of the impression. Impressions made using Imprint II Garant Monophase impression material are very stable and may be poured up to two weeks post polymerization.

14. Impressions should be shipped in packaging designed to prevent distortion and contamination.
Storage and Use

- The system is designed to be used at room temperature of approximately 21-24° C (70-75° F)
- Shelf life at room temperature (see above) is 36 months. See outer package for expiry date.
- Impressions made with Imprint™ II Garant™ Monophase impression material should be stored dry at room temperature (see above). Do not store in water or excessive humidity.
- Avoid storage conditions which are below 5° C (41° F) and 20% relative humidity, or higher than 27° C (81° F) and 80% relative humidity. Storage under these conditions may adversely affect the overall quality and performance of Imprint II Garant impression material.
- Impressions made with Imprint II Garant Monophase impression material may be silver- or copper-plated.
- Imprint II Garant Monophase impression material working time may be extended by using materials that have been cooled by refrigeration. Oral set times may be greater than the recommended 4 minutes if materials are refrigerated before use.
- Tray adhesives may be removed from reusable impression trays by soaking the tray in orange solvent or mineral spirits.

Regulatory Specification Data

- International Standard ISO 4823
- Chemical Nature: Vinyl Polysiloxane
- Maximum Compression Set: <1.0%
- Recovery From Deformation: >99.0%
- Linear Dimensional Change: 24 Hrs. <0.2%
- Strain in Compression: Imprint II Garant Monophase: 2 - 4%
- Recommended Gypsum Pour Time:
  - Minimum: 30 minutes following disinfection.
  - Maximum: 2 weeks.
- Metalizing Bath: Ag, Cu
- Mix Consistency: Type 2, Medium Body
- Mix Time @73° F: Auto-Mix
- Total Work Time @73° F: 120 sec.
- Min. Oral Set Time @92° F: 240 sec.

No person is authorized to provide any information which deviates from the information provided in this instruction sheet.
Warranty

3M ESPE warrants this product will be free from defects in material and manufacture. 3M ESPE MAKES NO OTHER WARRANTIES INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. User is responsible for determining the suitability of the product for user’s application. If this product is defective within the warranty period, your exclusive remedy and 3M ESPE’s sole obligation shall be repair or replacement of the 3M ESPE product.

Limitation of Liability

Except where prohibited by law, 3M ESPE will not be liable for any loss or damage arising from this product, whether direct, indirect, special, incidental or consequential, regardless of the theory asserted, including warranty, contract, negligence or strict liability.