

3M Science.
Applied to Life.™

Bonding Technique Guide
Orthodontic Products

Innovative solutions for an improved bonding experience



Dear 3M Adhesive Customer:

The 3M Bonding Technique Guide has been developed as a multi-purpose guide to assist you and your staff when using 3M orthodontic adhesive products. It depicts step-by-step techniques for use of 3M adhesive products.*

For ease of use, the guide has been divided into two sections: Direct Bonding and Indirect Bonding. Within each section, the products are further identified as light cure or chemical cure. There are separate sections for Banding and Lingual Retainers. As a multi-purpose guide, it can be used at chair side and as a tool to train new team members on the products that you currently use and all team members on products you intend to use in the future.

Other sections of the Bonding Technique Guide include:

- Frequently Asked Questions – to assist with questions or for additional information on our adhesive products
- Ordering Information – to make ordering adhesive products quick and easy

We hope you find the “Bonding Technique Guide” an easy, useful and efficient tool when using 3M adhesives in your office.

You can access the Bonding Technique Guide on the website at: 3M.com/ortho. If you require further technical information, please call the Technical Hot Line: U.S. and P.R. (800) 265 1943, Worldwide (626) 574 4577.

*Refer to the Instructions For Use supplied with each individual product for product specific warnings, cautions and additional information.

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Direct Bonding

Light Cure

APC™ Adhesive Coated Appliance System with:

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Transbond™ XT Light Cure Orthodontic Adhesive in Syringes or Capsules with:

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- Transbond™ Plus Self Etching Primer14
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Chemical Cure

Concise™ Orthodontic Bonding System with:

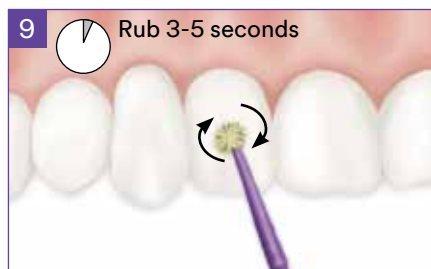
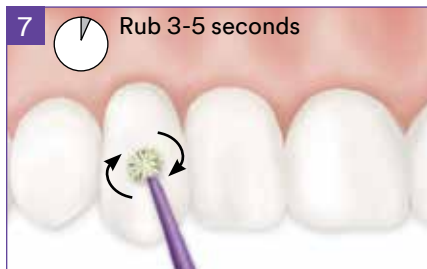
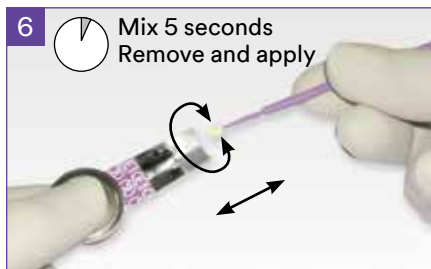
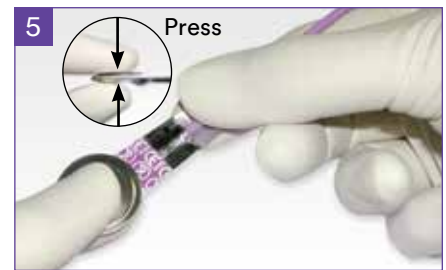
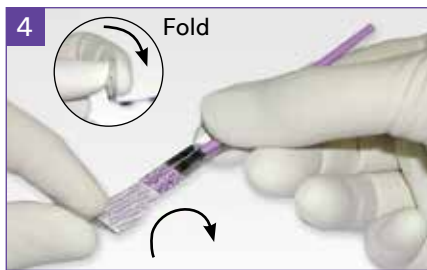
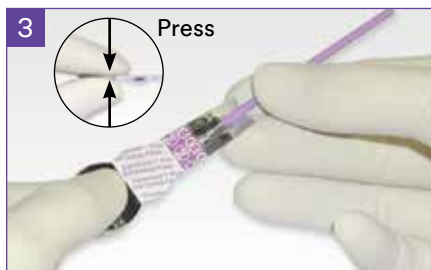
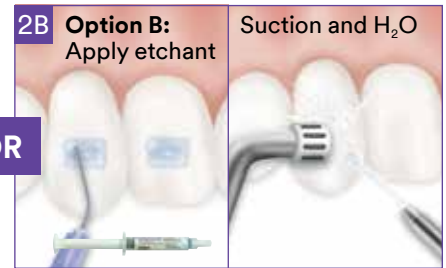
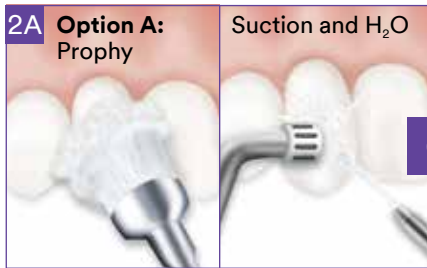
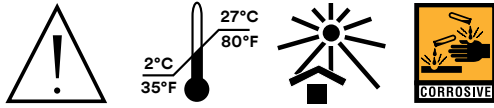
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Light Cure

APC™ Flash-Free Adhesive Coated Appliance System with Transbond™ Plus Self Etching Primer



Light Curing Times

Ortholux™ Luminous Curing Light:

Metal Brackets:

6 seconds mesial × 6 seconds distal

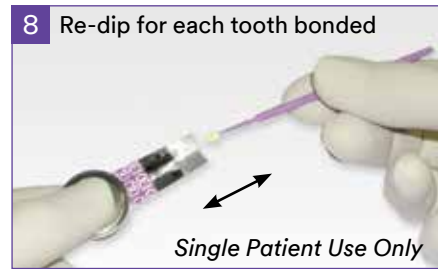
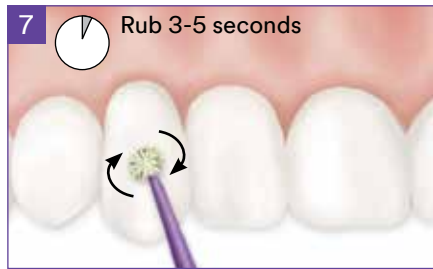
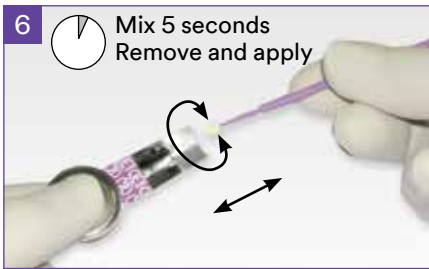
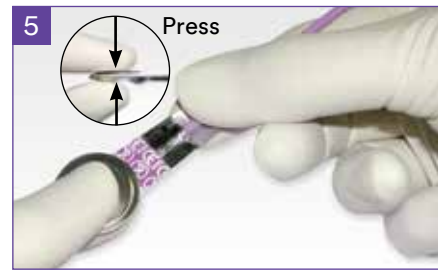
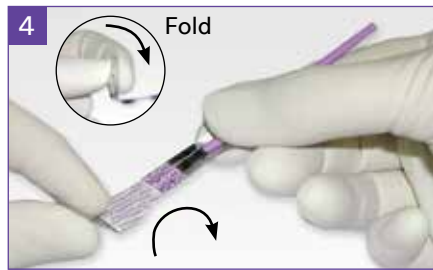
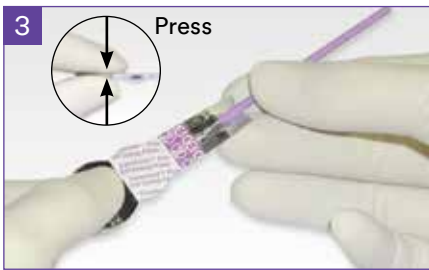
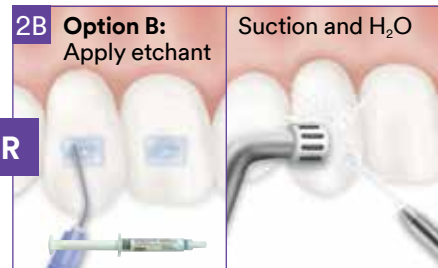
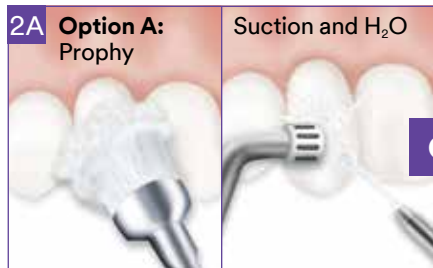
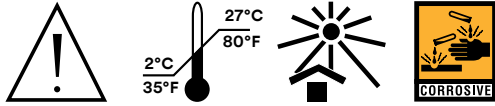
Ceramic Brackets:

3 seconds, straight through the bracket

Direct Bond Buccal Tubes:

6 seconds mesial × 6 seconds occlusal

APC™ PLUS Adhesive Coated
Appliance System or APC™ II Adhesive
Coated Appliance System with
Transbond™ Plus Self Etching Primer



Light Curing Times

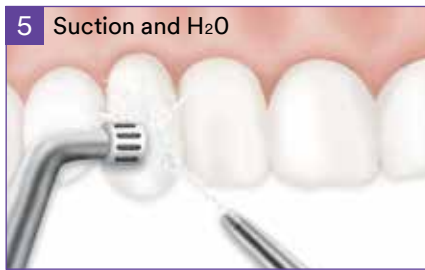
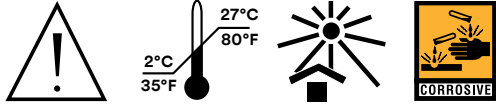
Ortholux™ Luminous Curing Light:

Metal Brackets:
3 seconds mesial × 3 seconds distal

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Direct Bond Buccal Tubes:
6 seconds mesial × 6 seconds occlusal

APC™ Flash-Free Adhesive Coated Appliance System with Transbond™ MIP Moisture Insensitive Primer



Light Curing Times

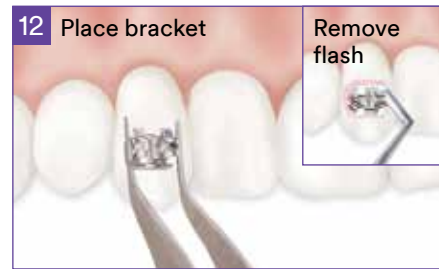
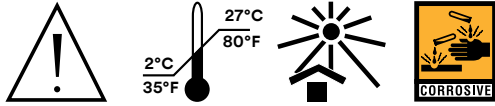
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APC™ PLUS Adhesive Coated Appliance System
 or APC™ II Adhesive Coated Appliance System
 with Transbond™ MIP Moisture Insensitive Primer



Light Curing Times

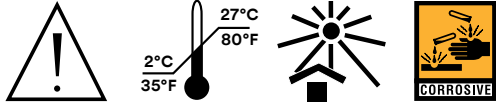
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APC™ Flash-Free Adhesive Coated Appliance System
with Transbond™ XT Light Cure Orthodontic Primer



Light Curing Times

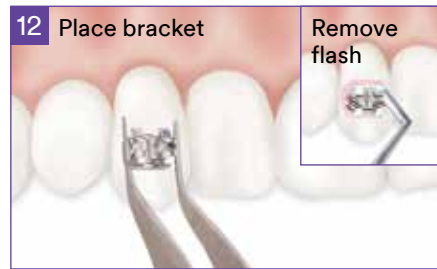
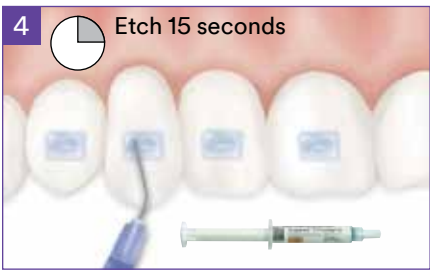
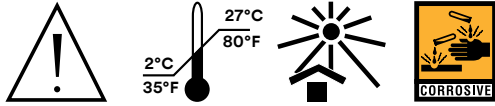
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APC™ PLUS Adhesive Coated Appliance System
 or APC™ II Adhesive Coated Appliance System
 with Transbond™ XT Light Cure Orthodontic Primer



Light Curing Times

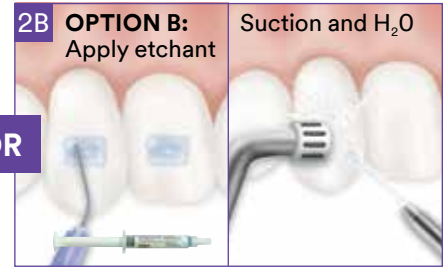
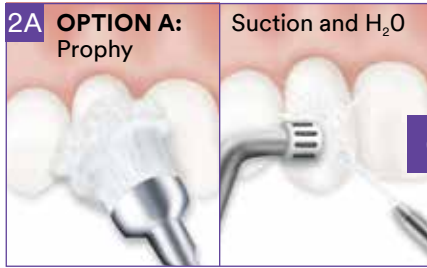
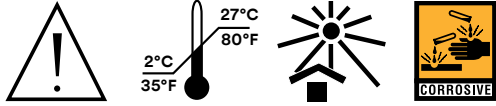
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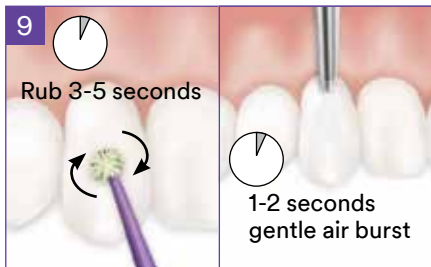
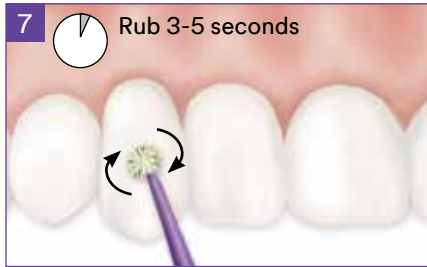
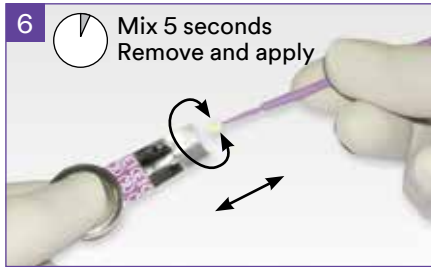
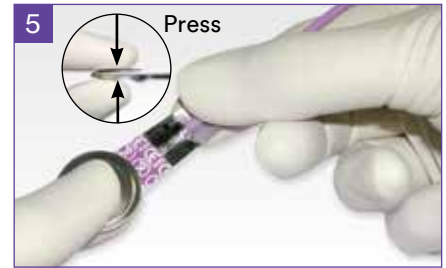
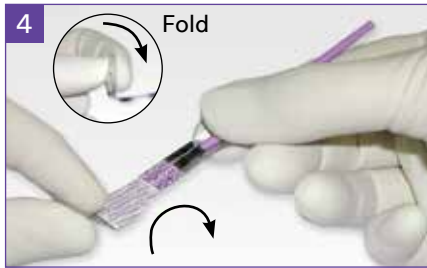
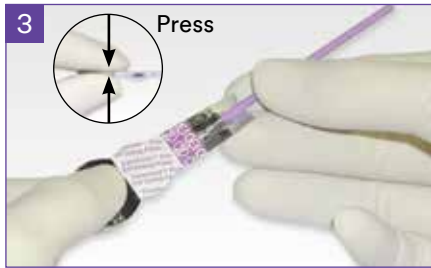
Ceramic Brackets:
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Direct Bond Buccal Tubes:
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Transbond™ XT Light Cure Orthodontic Adhesive in Syringes or Capsules with Transbond™ Plus Self Etching Primer



OR



Light Curing Times

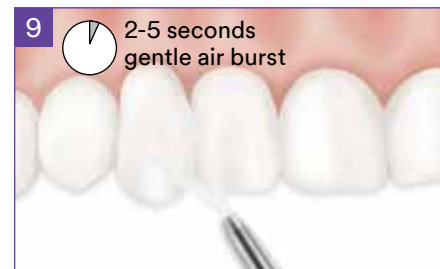
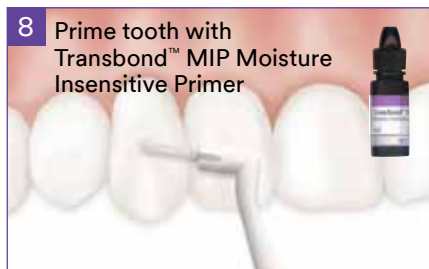
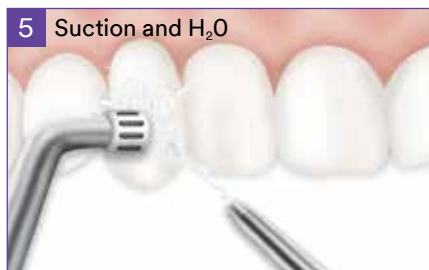
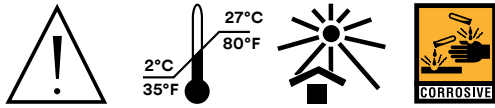
Ortholux™ Luminous Curing Light:

Metal Brackets:
3 seconds mesial × 3 seconds distal

Ceramic Brackets:
3 seconds, straight through the bracket

Direct Bond Buccal Tubes:
6 seconds mesial × 6 seconds occlusal

Transbond™ XT Light Cure Orthodontic Adhesive in Syringes or Capsules with Transbond™ MIP Moisture Insensitive Primer



Light Curing Times

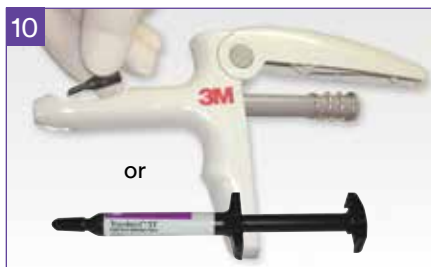
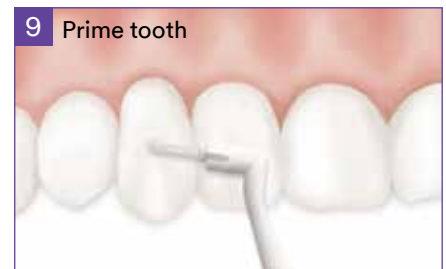
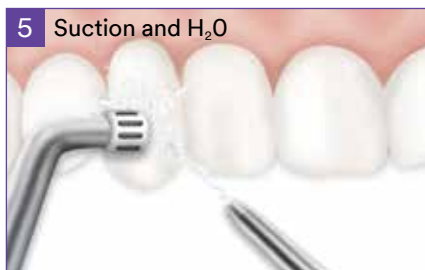
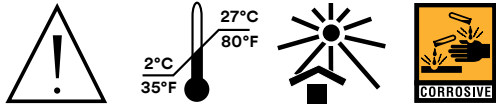
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Transbond™ XT Light Cure Orthodontic Adhesive
in Syringes or Capsules with Transbond™ XT
Light Cure Orthodontic Primer



Light Curing Times

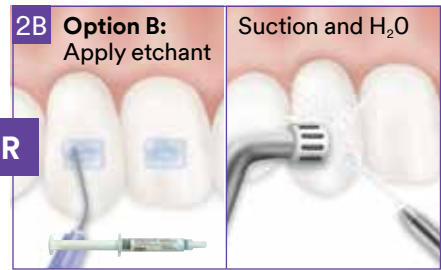
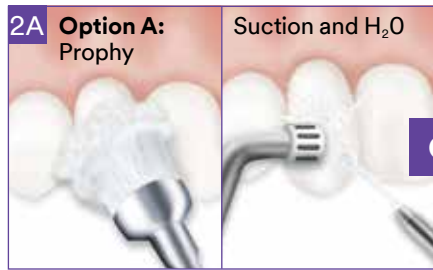
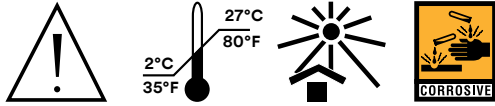
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Metal Brackets:
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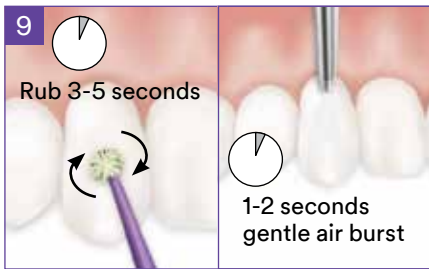
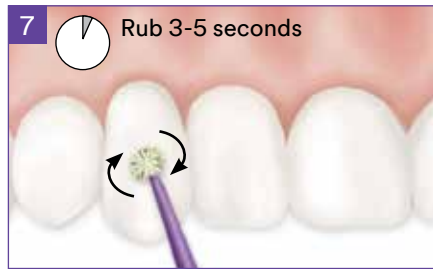
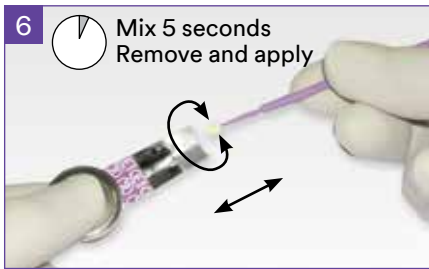
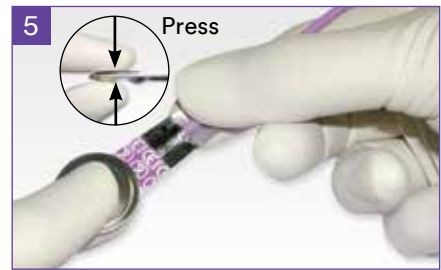
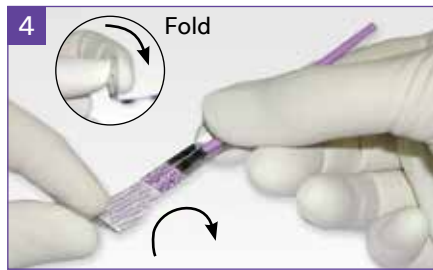
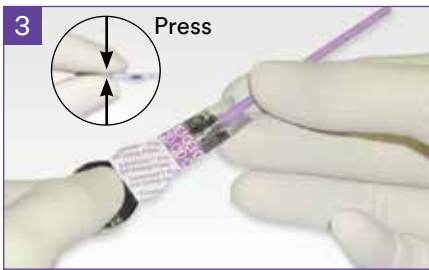
Ceramic Brackets:
3 seconds, straight through the bracket

Direct Bond Buccal Tubes:
6 seconds mesial × 6 seconds occlusal

Transbond™ PLUS Color Change Adhesive in Syringes or Capsules with Transbond™ Plus Self Etching Primer



OR



Light Curing Times

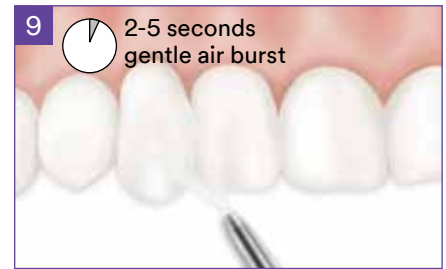
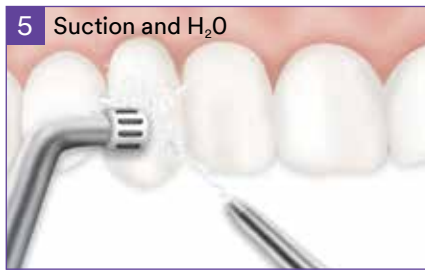
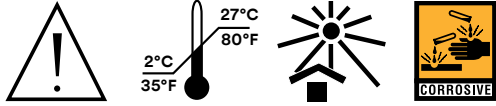
Ortholux™ Luminous Curing Light:

Metal Brackets:
3 seconds mesial × 3 seconds distal

Ceramic Brackets:
3 seconds, straight through the bracket

Direct Bond Buccal Tubes:
6 seconds mesial × 6 seconds occlusal

Transbond™ PLUS Color Change Adhesive in Syringes or Capsules with Transbond™ MIP Moisture Insensitive Primer



Light Curing Times

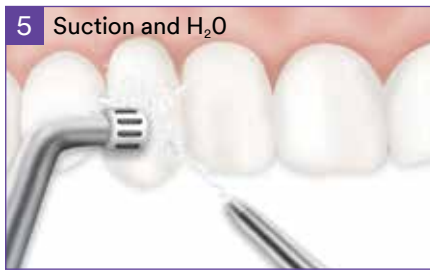
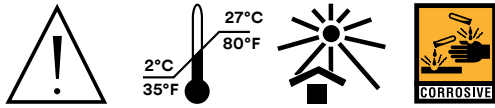
Ortholux™ Luminous Curing Light:

Metal Brackets:
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Ceramic Brackets:
3 seconds, straight through the bracket

Direct Bond Buccal Tubes:
6 seconds mesial × 6 seconds occlusal

Transbond™ PLUS Color Change Adhesive in Syringes or Capsules with Transbond™ XT Light Cure Orthodontic Primer



Light Curing Times

Ortholux™ Luminous Curing Light:

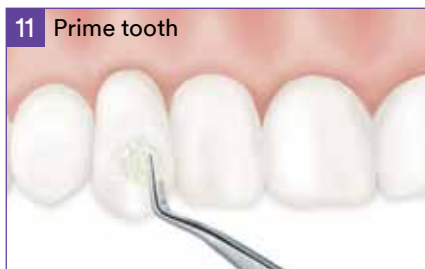
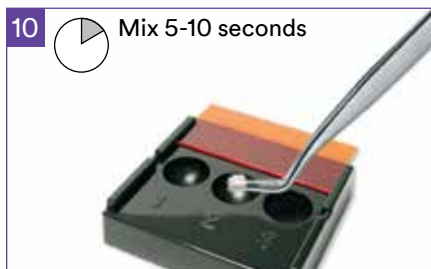
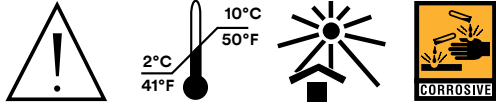
Metal Brackets:
3 seconds mesial × 3 seconds distal

Ceramic Brackets:
3 seconds, straight through the bracket

Direct Bond Buccal Tubes:
6 seconds mesial × 6 seconds occlusal

Chemical Cure

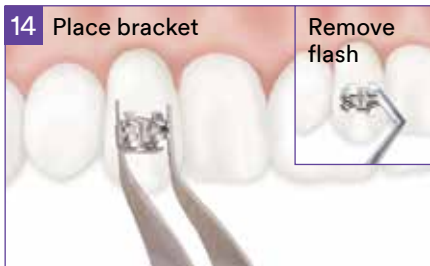
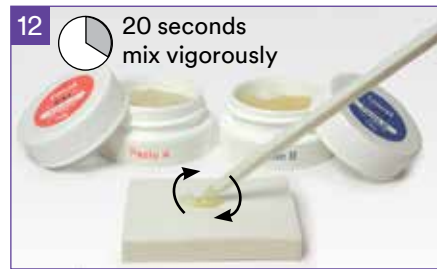
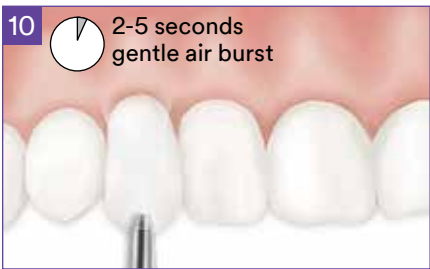
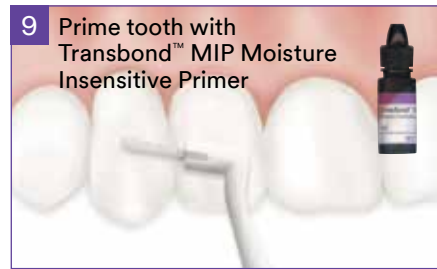
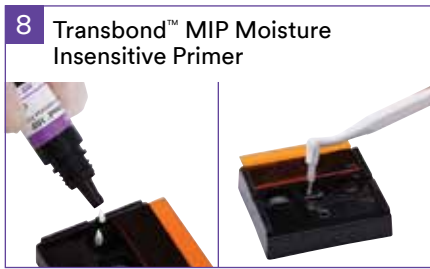
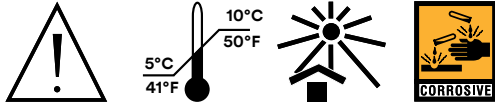
Concise™ Orthodontic Bonding System with Concise™ Adhesive Primer



Mixing Ratio		Approximate Working Time (after mixing)
Paste A	Paste B	
1	1	1 min. 45 sec.
1	2	3 min. 30 sec.
2	1	55 sec.

More Paste A will accelerate the set time
More Paste B will retard the set time

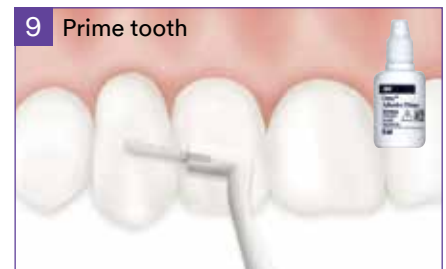
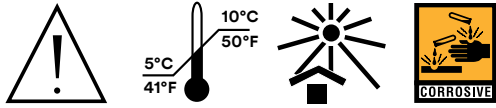
Concise™ Orthodontic Bonding System with Transbond™ MIP Moisture Insensitive Primer



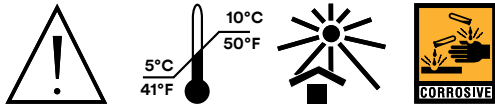
Mixing Ratio		Approximate Working Time (after mixing)
Paste A	Paste B	
1	1	1 min. 45 sec.
1	2	3 min. 30 sec.
2	1	55 sec.

More Paste A will accelerate the set time
More Paste B will retard the set time

Unite™ Bonding Adhesive with Unite™ Adhesive Primer



Unite™ Bonding Adhesive with Transbond™ MIP Moisture Insensitive Primer



<p>1 Isolate teeth</p>	<p>2 Clean teeth</p>	<p>3 H₂O Air dry</p>	
<p>4 Etch 15 seconds</p>	<p>5 Suction and H₂O</p>	<p>6 Transbond™ MIP Moisture Insensitive Primer</p>	
<p>7</p>	<p>8 Prime tooth</p>	<p>9 2-5 seconds gentle air burst</p>	
<p>10 Unite™ Adhesive Primer</p>	<p>11 Prime bracket with Unite™ Adhesive Primer</p>	<p>12 Apply adhesive to bracket base</p>	
<p>13 Place bracket</p> <p>Remove flash</p>	<p>14 Hold in final position for 5-10 seconds</p>		<p>15</p> <p>Wait 4 minutes before engaging archwire*</p>

Indirect Bonding

Light Cure

Transbond™ Supreme LV Low Viscosity Light Cure Adhesive in Syringes with:

- Transbond™ Plus Self Etching Primer 22
- Transbond™ MIP Moisture Insensitive Primer 23
- Transbond™ XT Light Cure Orthodontic Primer..... 24

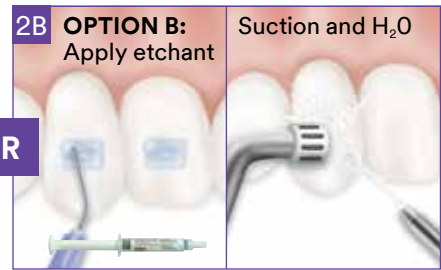
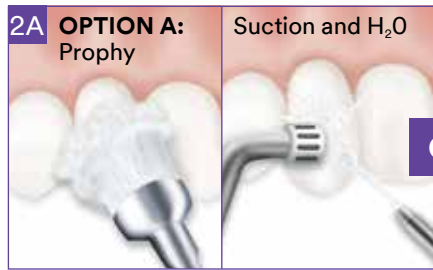
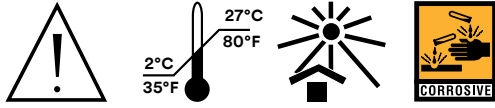
Chemical Cure

Indirect Bonding Adhesive

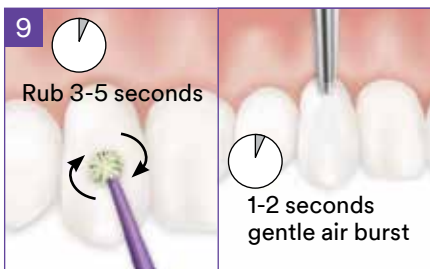
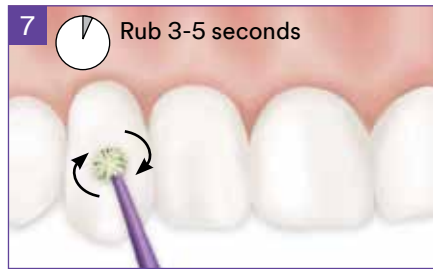
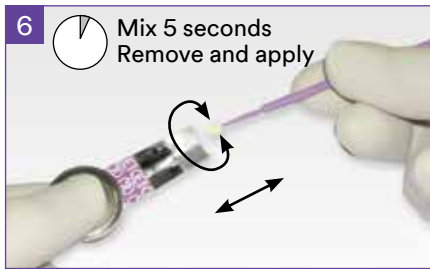
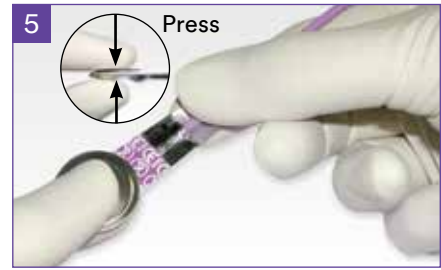
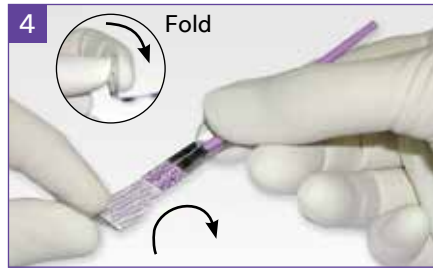
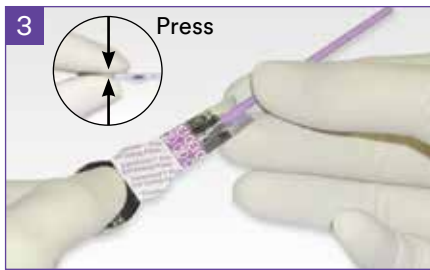
- Indirect Bonding Steps Using Dr. Sondhi's Technique 25
- Sondhi™ Rapid-Set Indirect Bonding Adhesive 26
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- Sondhi™ Rapid-Set Indirect Bonding Adhesive Lingual Technique 28
- Transbond™ IDB Pre-Mix Chemical Cure Adhesive Lingual Technique 29
(Also see Incognito™ Appliance System Bonding Protocol 70-2021-5281-8.)
- Transbond™ IDB Pre-Mix Chemical Cure Adhesive Labial Technique..... 30

Light Cure

Transbond™ Supreme LV Low Viscosity
Light Cure Adhesive in Syringes
with Transbond™ Plus Self Etching Primer



OR



Light Curing Times

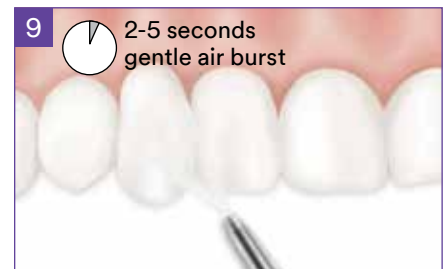
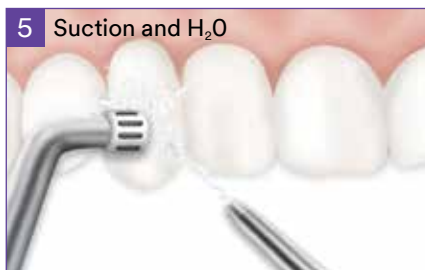
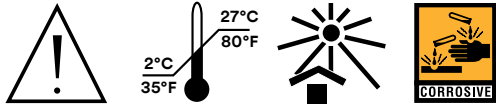
Ortholux™ Luminous Curing Light:

Metal Brackets:
3 seconds mesial × 3 seconds distal

Ceramic Brackets:
3 seconds, straight through the bracket

Direct Bond Buccal Tubes:
6 seconds mesial × 6 seconds occlusal

Transbond™ Supreme LV Low Viscosity
Light Cure Adhesive in Syringes with
Transbond™ MIP Moisture Insensitive Primer



Light Curing Times

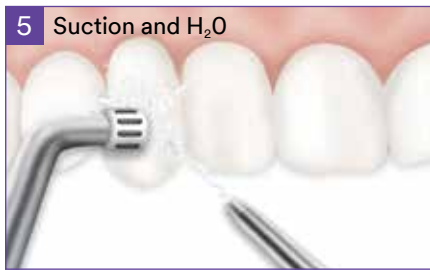
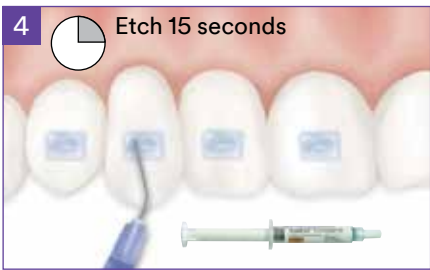
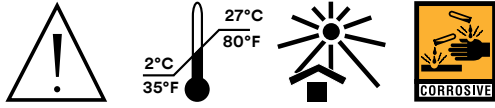
Ortholux™ Luminous Curing Light:

Metal Brackets:
3 seconds mesial × 3 seconds distal

Ceramic Brackets:
3 seconds, straight through the bracket

Direct Bond Buccal Tubes:
6 seconds mesial × 6 seconds occlusal

Transbond™ Supreme LV Low Viscosity
Light Cure Adhesive in Syringes with
Transbond™ XT Light Cure Orthodontic Primer



Light Curing Times

Ortholux™ Luminous Curing Light:

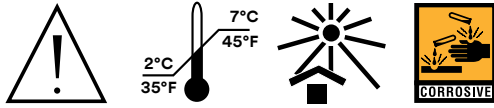
Metal Brackets:
3 seconds mesial × 3 seconds distal

Ceramic Brackets:
3 seconds, straight through the bracket

Direct Bond Buccal Tubes:
6 seconds mesial × 6 seconds occlusal

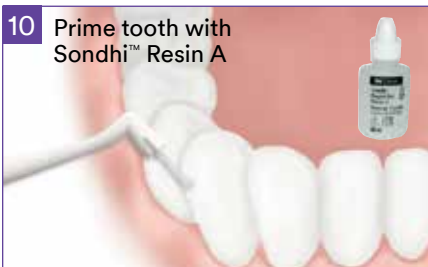
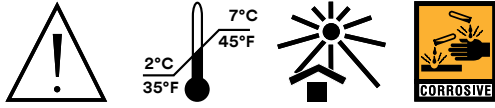
Chemical Cure

Indirect Bonding Steps Using Dr. Sondhi's Technique

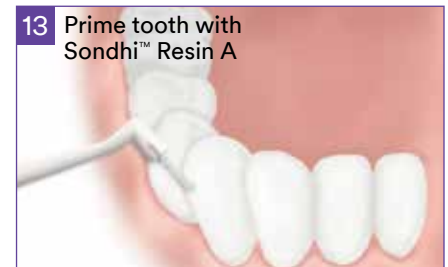
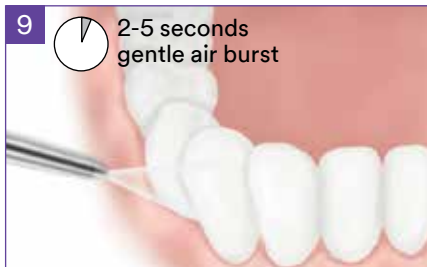
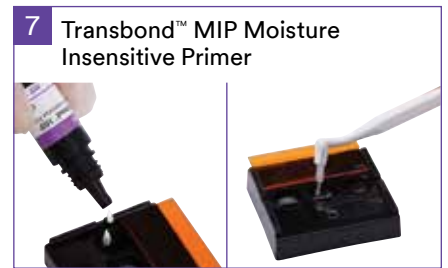
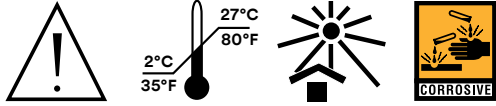


- 1 Take impression**
- 2 Prepare and dry model**
- 3 Coat model with separating medium and dry for 1 hour**
- 4 Place brackets on model, position and remove excess flash**
- 5 Light cure for 10 minutes**
- 6 Spray brackets with cooking spray if desired, for easy removal**
- 7 Form hard and soft tray(s)**
- 8 Trim excess tray material**
- 9 Soak model and remove tray(s)**
- 10 Trim tray(s)**
- 11 Light cure tray(s) for 1 minute**
- 12 Wash, rinse and dry tray(s)**
- 13 Lightly micro-etch custom resin bases**
- 14 Air clean**
- 15 Reference Sondhi™ Rapid-Set Indirect Bonding Adhesive instructions for bonding**

Sondhi™ Rapid-Set Indirect Bonding Adhesive

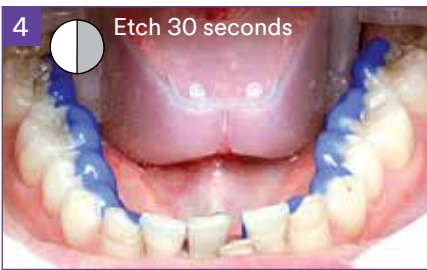
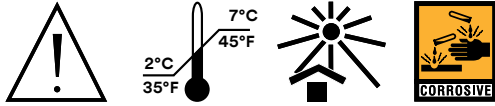


Sondhi™ Rapid-Set Indirect Bonding Adhesive with Transbond™ MIP Moisture Insensitive Primer



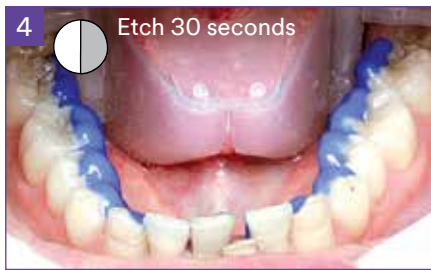
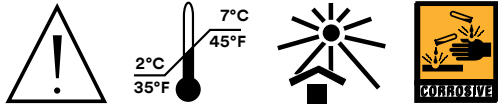
Sondhi™ Rapid-Set Indirect Bonding Adhesive Lingual Technique

Note: Use Dry Field System



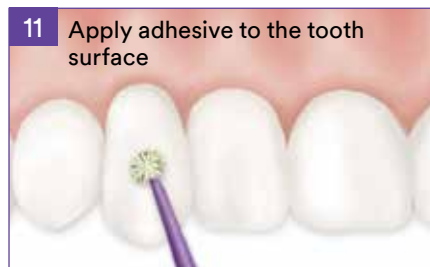
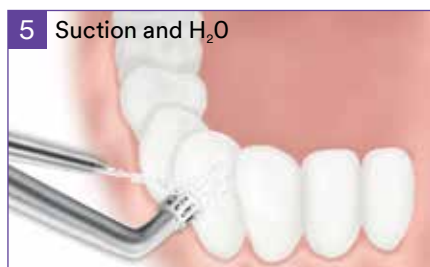
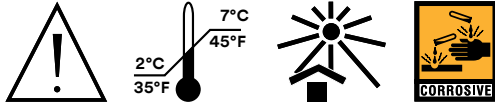
Transbond™ IDB Pre-Mix Chemical Cure Adhesive
Lingual Technique*

Note: Use Dry Field System



*For more specific instructions for Indirect Bonding in the Incognito™ Appliance System, please refer to the Incognito Appliance System Bonding Protocol (Chemical Cure) 70-2021-5281-8.

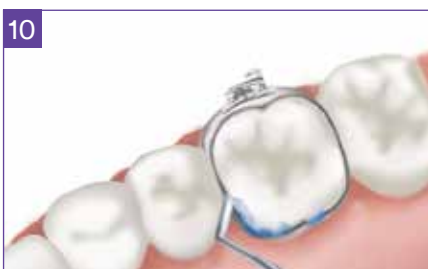
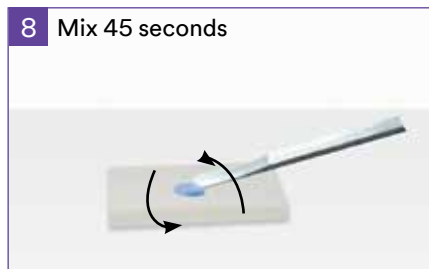
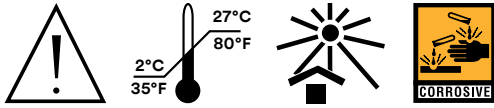
Transbond™ IDB Pre-Mix Chemical Cure Adhesive
 Labial Technique
Note: Use Dry Field System



Banding Molars

Unitek™ Multi-Cure Glass Ionomer Band Cement	32
Transbond™ Plus Light Cure Band Adhesive.....	33

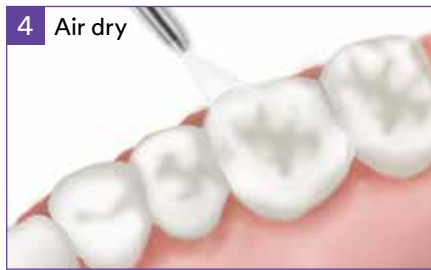
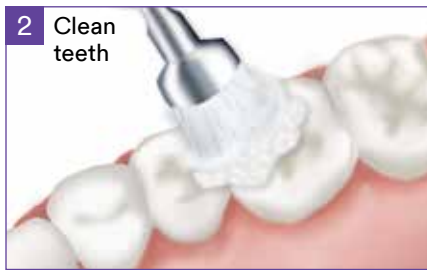
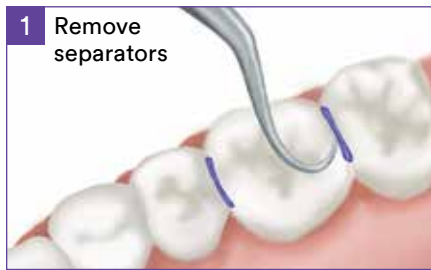
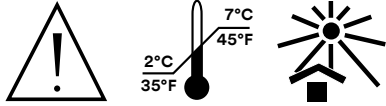
Unitek™ Multi-Cure Glass Ionomer Band Cement



Light Curing Times
Ortholux™ Luminous Curing Light:
Metal Brackets:
 12 seconds (3 seconds per cusp)

Self Curing Time
5 Minutes

Transbond™ Plus Light Cure Band Adhesive



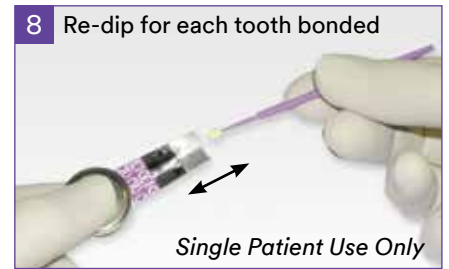
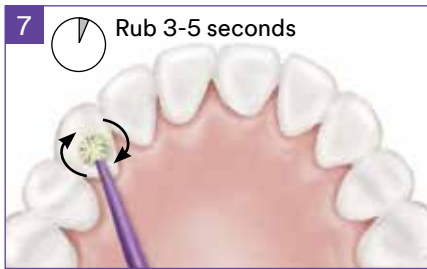
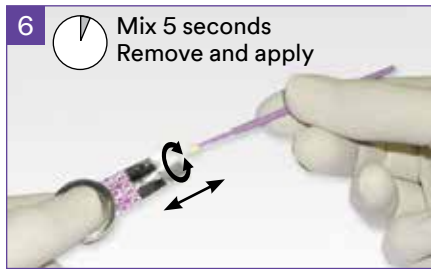
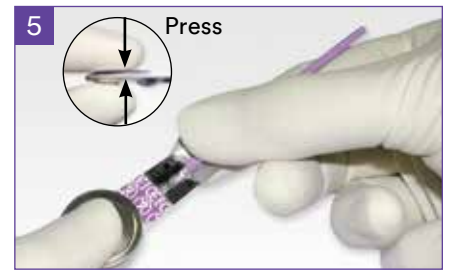
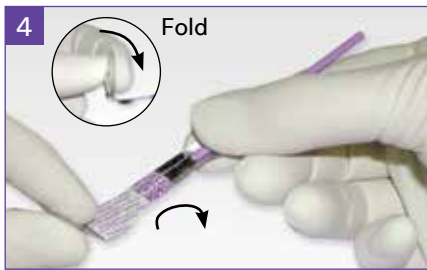
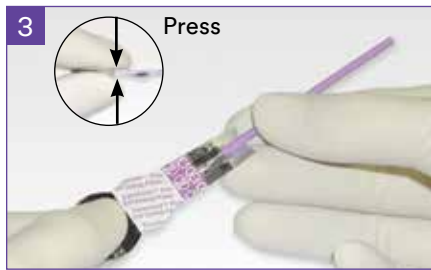
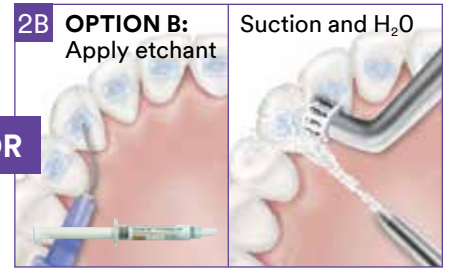
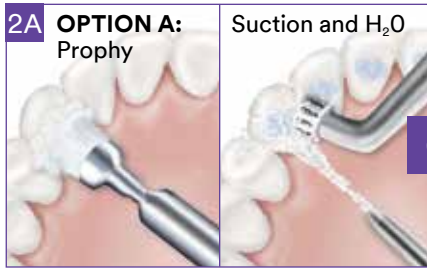
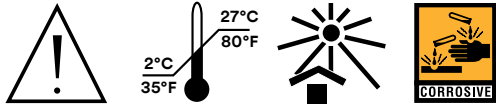
Light Curing Times
Ortholux™ Luminous Curing Light:
Bands:
12 seconds (3 seconds per cusp)

Lingual Retainers

Transbond™ LR Light Cure Adhesive in Capsules for Bonded Lingual Retainers with:

- Transbond™ Plus Self Etching Primer 35
- Transbond™ MIP Moisture Insensitive Primer 36
- Transbond™ XT Light Cure Orthodontic Primer..... 37

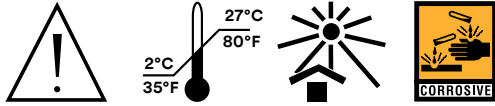
Transbond™ LR Adhesive for Lingual Retainers in Capsules with Transbond™ Plus Self Etching Primer



Light Curing Times

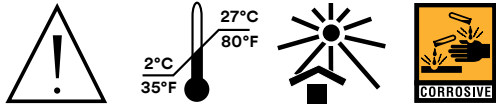
Ortholux™ Luminous Curing Light:
Lingual Retainers
6 seconds per button

Transbond™ LR Adhesive for Lingual Retainers in Capsules with Transbond™ MIP Moisture Insensitive Primer



Light Curing Times
Ortholux™ Luminous Curing Light:
Lingual Retainers
 6 seconds per button

Transbond™ LR Adhesive for Lingual Retainers in Capsules with Transbond™ XT Light Cure Orthodontic Primer



Light Curing Times
Ortholux™ Luminous Curing Light:
Lingual Retainers
 6 seconds per button

Frequently Asked Questions

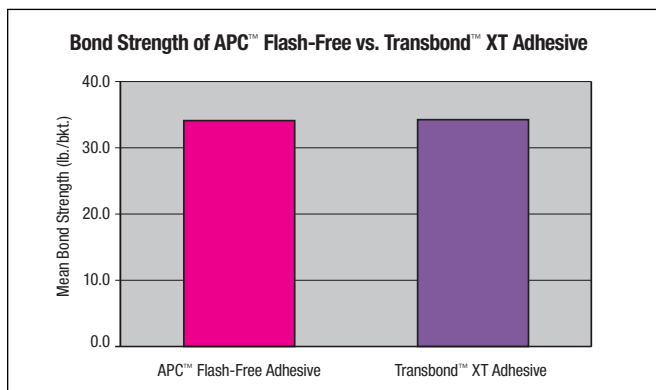
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APC™ Flash-Free Adhesive Coated Appliance System Frequently Asked Questions

Bonding

1. What is the difference in bond strength between APC™ Flash-Free Adhesive and other adhesives?

The bond strength of APC Flash-Free Adhesive is comparable to that of Transbond™ XT, APC™ II and APC™ PLUS Adhesive.



2. Is APC Flash-Free Adhesive compatible with other primers or sealants?

Yes. This adhesive is compatible with Transbond™ brand primers as well as other primers or sealant based on bis-GMA monomer.

3. What is the necessary time to cure the APC Flash-Free Adhesive?

Ensure all metal appliances coated with APC Flash-Free Adhesive are cured for a minimum of 12 seconds using the Ortholux™ Luminous Curing Light.

Appliance with APC™ Flash-Free Adhesive	Ortholux™ LED Curing Light (App. 1000 mW/cm ²) (LED)	Ortholux™ Luminous Curing Light (App. 1600 mW/cm ²) (LED)
Metal Brackets	10 seconds mesial + 10 seconds distal	6 seconds mesial + 6 seconds distal
Ceramic Brackets	5 seconds through the bracket	3 seconds through the bracket
Bondable Buccal Tubes	10 seconds mesial + 10 seconds occlusal	6 seconds mesial + 6 seconds occlusal

Refer to IFU 011-656 for additional curing information.

4. What is the set time for APC Flash-Free Adhesive?

APC Flash-Free Adhesive has Camphoroquinone which can cure under white light. Depending on the ambient light intensity in the operatory, APC Flash-Free Adhesive will still be usable following 15 minutes of exposure. It is best to avoid overexposure to light by opening the blister right before bonding, and by covering the patient's mouth with a mask if brackets have been placed but not positioned.

5. How does APC Flash-Free Adhesive feel when first placed on the tooth?

The mat is infused with lightly filled resin. The resin has a primer-like consistency and feels softer than a paste adhesive. It requires less force to position and fully seat the bracket onto the tooth.

6. How does APC Flash-Free Adhesive feel when pushing on the bracket to seat on the tooth?

When seating the bracket onto the tooth, there is little resistance. One will feel the mat squeezing the excess resin out around the bracket margins. Unlike traditional paste adhesives, it is not necessary to push hard on the bracket.

7. Can I reuse the bracket if it is accidentally knocked off the tooth?

If the bracket is accidentally dislodged from the tooth during positioning or dropped within the mouth, it can be recovered as follows: 1. Squeeze the resin from the nonwoven pad with a non-linting tissue and replace with Transbond™ Supreme LV Adhesive, or, 2. Completely remove the mat and resin from the bracket and replace with Transbond™ XT Adhesive.

APC™ Flash-Free Adhesive

8. What are the components of the APC Flash-Free Adhesive?

APC Flash-Free Adhesive contains a nonwoven mat and methacrylate-based resin.

9. Is APC Flash Free Adhesive moisture tolerant?

No. This adhesive is not moisture tolerant.

10. Does APC Flash Free Adhesive release fluoride?

No, this adhesive does not release fluoride.

11. Is APC Flash Free Adhesive color changing?

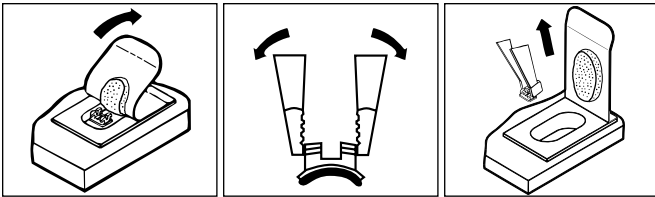
No. This adhesive does not change color. It is a translucent adhesive and it will not change color.

APC™ Flash-Free Adhesive Coated Appliance System

Frequently Asked Questions (continued)

12. What is the best method to take the brackets out of the blister?

To remove the adhesive coated appliance from the blister, grasp the mesial/distal sides of the appliance with a bracket placement instrument and tilt it mesially/distally to release the bracket.



Adhesive Meniscus

13. Is it necessary to clean the excess resin that flows out after seating the bracket?

No. The excess resin is not considered flash and cleaning excess resin may interfere with proper bonding.

14. Why is it not necessary to clean the excess resin when bonding with APC Flash-Free Adhesive?

The resin contained in the nonwoven mat is very lightly filled. Rather than forming “clumps” at the bracket periphery, it wets the tooth surface to form a meniscus or fillet.



15. Does the meniscus or fillet that forms around the edges of the bracket during treatment protect the enamel?

Yes. 3M lab studies have shown that, once cured, the APC™ Flash-Free resin material protects the covered enamel from the softening effects of acid exposure.¹

16. How long will the resin meniscus or fillet remain on the tooth?

3M lab studies have shown that the APC Flash-Free resin material, once cured, resists abrasion from tooth brushing. Over 76% of the meniscus still remained on the tooth after the equivalent of 3 years of tooth brushing.¹

Indirect Bonding (IDB)

17. Can APC Flash-Free Adhesive coated appliances be used for indirect bonding?

Yes. Similar to APC™ II Adhesive coated brackets, APC Flash-Free Adhesive coated brackets can be used for indirect bonding.

18. What benefits are there to the use of APC Flash-Free Adhesive for indirect bonding?

With APC Flash-Free Adhesive, there is no need to clean the flash when the bracket is seated on the stone model. This saved step can also minimize the chances of accidental bracket displacement.

19. How many days can brackets with APC Flash-Free Adhesive sit on the stone model without curing?

It is recommended that brackets be cured immediately after pressing into place. However, when this is not possible, they should be cured within 1 day, pressing the brackets into place immediately prior to curing.

20. Does it feel different when seating a bracket on a stone model with APC Flash-Free Adhesive, as compared to paste adhesive?

Yes. Because APC Flash-Free Adhesive is less viscous and contains less filler, it feels softer in comparison to seating a bracket with paste adhesive. It is also not necessary to push down as hard as one would with a paste adhesive.

21. What indirect bonding adhesives are compatible with APC Flash-Free Adhesive?

APC Flash-Free Adhesive is compatible with indirect bonding adhesives from 3M such as Transbond™ IDB Indirect Bonding Adhesive, Sondhi™ Rapid Set Adhesive, and Transbond™ Supreme LV Low Viscosity Adhesive.

APC™ Flash-Free Adhesive Coated Appliance System Frequently Asked Questions (continued)

22. What separating medium can I use?

Al-Cote® (Dentsply), Kefoil (Keystone), Liquid-Foil (American Dental), Liquid Foil Separator (Great Lakes Ortho), COE-SEP (GC) can be used as a separating medium when using APC Flash Free Adhesive for indirect bonding. Note that 1:4 Al-Cote in water is **NOT RECOMMENDED** to be used as a separating medium during the indirect bonding process.

Debonding

23. How does APC Flash-Free Adhesive debonding compare to other conventional adhesives?

An in-vitro study showed that APC Flash-Free Adhesive had more consistent and predictable debonding compared to other adhesives in the study. When debonding APC Flash-Free Adhesive, most of the adhesive remained on the tooth, and was easier to remove.²

24. Is adhesive remnant cleanup different for APC Flash-Free Adhesive?

Clinicians in an in-vitro study thought that the adhesive was more yielding and pliable than the conventional adhesive they compared it to, requiring less force on the handpiece for adhesive remnant clean-up. This difference can be because APC Flash-Free Adhesive contains less fillers.²

Shelf-Life and Storage

25. What is the shelf life of APC Flash-Free Adhesive system brackets?

APC Flash-Free Adhesive system brackets have a shelf life of 3 years (36 months) from the date of manufacture when stored at room temperature.

26. What is the best method to store the APC Flash-Free Adhesive coated brackets?

APC Flash-Free Adhesive coated brackets may be stored between 35° and 80°F (2° and 27°C), out of direct sunlight.

27. Can APC Flash-Free Adhesive coated brackets be stored in existing Inventory Dispensing System (IDS) units?

Yes. APC Flash-Free Adhesive coated brackets can be stored in existing IDS drawers and back-up storage units.

References

1. Zhu, Nordine, Cinader, APC™ Flash-Free Adhesive: What of the Excess?, *Orthodontic Perspectives Innova*, Vol.XX No. 2, pp 13-15, October 2013.
2. Gruenheid, T. & Sudit, G. (2014). *Debonding and adhesive remnant cleanup: an in vitro comparison of bond quality, adhesive remnant cleanup, and orthodontic acceptance of a flash-free product*. Unpublished manuscript, University of Minnesota, Minneapolis, MN.

70-2021-5269-3

APC™ PLUS Adhesive Coated Appliance Systems

Frequently Asked Questions

1. Is the color of the adhesive a curing indicator?

No, the color change does not indicate curing of the adhesive. Under ambient light, the pink color fades away several minutes before the adhesive cures.

2. Is the consistency of APC™ PLUS Adhesive comparable to APC™ II Adhesive?

The consistency of APC PLUS adhesive has been engineered to be very closely matched with that of APC II adhesive. You might find, however, that APC PLUS adhesive is slightly tackier.

3. After seating APC PLUS system brackets, is there a way to slow the fading of the pink color?

Yes, covering the patient’s mouth with a dark cloth will retard the fading of the pink color.

4. Can the colored APC PLUS adhesive stain the teeth?

No, APC PLUS adhesive bleaches with light exposure and will not stain teeth.

5. What is the filler material in APC PLUS adhesive?

The filler material is a mixture of quartz, fumed silica, and glass.

6. Can I move the bracket after seating but before curing?

Once the bracket has been seated, the adhesive is squeezed out. If the bracket is moved at this point, there may not be complete adhesive coverage under

the bracket, which may result in bond failure or decalcification. To ensure complete coverage, remove the bracket, apply additional Transbond™ XT Adhesive and proceed as usual with your bonding steps.

7. What is the difference in bond strength between APC II adhesive coated brackets and APC PLUS adhesive coated brackets?

Both APC II adhesive coated brackets and APC PLUS adhesive coated brackets provide clinically acceptable shear bond forces when used with either ceramic or metal appliances.

8. Do APC PLUS adhesive coated ceramic and metal brackets cure in the same time as APC II system brackets?

Yes, APC PLUS and APC II adhesive coated brackets cure in the same amount of time, and using the same methods. See Figure 1 below.

9. How is APC PLUS adhesive cured?

APC PLUS adhesive contains camphorquinone (CPQ) and is cured by visible light emitting at a wavelength of approximately 475 nanometers.

10. How long should I wait before placing the archwire?

The archwire can be placed immediately after curing all brackets.

Appliance with APC™ PLUS Color Change Adhesive	Ortholux™ LED Curing Light (App. 1000 mW/cm²) (LED)	Ortholux™ Luminous Curing Light (App. 1600 mW/cm²) (LED)
Metal Brackets	5 seconds mesial + 5 seconds distal	3 seconds mesial + 3 seconds distal
Ceramic Brackets	5 seconds through the bracket	3 seconds through the bracket
Bondable Buccal Tubes	10 seconds mesial + 10 seconds occlusal	6 seconds mesial + 6 seconds occlusal

Figure 1

APC™ PLUS Adhesive Coated Appliance Systems Frequently Asked Questions (continued)

11. My APC™ PLUS Adhesive Coated Appliance System brackets were exposed to 90-100°F (32-38°C) temperatures for a short period of time. Are they still okay?

Yes, temperature elevation for a period of 2-3 hours will not affect shelf life or effectiveness of the adhesive on the bracket as long as it was not exposed to bright light, and it is allowed to reach room temperature prior to use.

12. Can I store APC PLUS system brackets in the freezer to extend shelf life?

No, this system should not be frozen. If refrigerated, it is imperative that the bracket reaches room temperature (68-77°F) before use. Abrupt movement of the package when the adhesive is very cold can cause bracket displacement from the proper location in the blister.

13. How can I clean dried adhesive from instruments?

It is best to clean instruments immediately after use. Instruments having adhesive remnants that are not completely cured can be cleaned by scraping the adhesive off the instrument, followed by cleaning with solvent or ultrasonically. However, if the adhesive is completely cured, it is very difficult to clean the instrument without damaging it. Cured adhesive may be carefully scraped off using another instrument. Take care not to scratch either instrument in the process.

14. Is APC PLUS adhesive moisture tolerant?

Yes, APC PLUS adhesive contains hydrophilic monomers and cured APC PLUS adhesive has an improved absorption of moisture compared to APC™ II adhesive.

Using Transbond™ Plus Self Etching Primer or Transbond™ MIP Moisture Insensitive Primer, both moisture-tolerant primers, along with APC PLUS system brackets will provide a complete moisture-tolerant bonding system. Using a hydrophobic primer with the APC PLUS system brackets will not provide a moisture-tolerant system.

15. Can I bond patients with a case containing both APC II and APC PLUS adhesive coated brackets? Will the bonding procedure change?

APC II and APC PLUS system brackets can be used interchangeably. There is no need to change your bonding technique.



16. What is the shelf life of APC PLUS system brackets?

APC PLUS system brackets have a shelf life of 2.5 years (30 months) at room temperature.

17. Is APC PLUS adhesive compatible with other primers or sealants?

Yes, most primers or sealants based on bis-GMA monomer will be compatible with APC PLUS adhesive.

18. Is the taste or odor associated with APC PLUS adhesive different than that of APC II adhesive?

No. The taste and odor of APC PLUS adhesive is very similar to that of APC II adhesive.

70-2021-5148-9

Transbond™ Plus Self Etching Primer

Frequently Asked Questions

1. Why is the liquid tinted pale yellow?

Camphorquinone (CPQ) causes the pale yellow tint. Therefore, after proper activation, the saturated applicator fiber tip will look pale yellow. CPQ is only contained in the outer large blister. If the contents of the first blister do not properly mix with the contents of the middle blister or if the applicator tip is not saturated with the properly mixed liquid, then the applicator tip will look clear.

2. Is this product moisture tolerant?

Yes, it contains a hydrophilic component which tolerates small amounts of moisture.^{1,3}

3. Is pumicing the teeth required before the use of Transbond™ Plus Self Etching Primer?

For maximum bond strength and bond reliability it is important to begin the procedure with a clean tooth surface. The tooth surface must be free of plaque, calculus and salivary pellicle. There are two methods for achieving a clean tooth surface prior to the application of Transbond Plus Self Etching Primer: *mechanical*, e.g. pumice or prophy paste, and *chemical*, e.g. phosphoric acid etchant.

4. What are the potential drawbacks of the prophy step?

For patients with poor oral hygiene or gingival hypertrophy an aggressive prophy step can cause damage to the gingival tissue which causes gingival crevicular fluid or blood to flow. This can contaminate the tooth surface and compromise bonding. Phosphoric acid can be used to achieve a clean tooth surface.

5. What do you recommend when using Transbond Plus Self Etching Primer on patients with poor oral hygiene?

As with any orthodontic bonding system it is important that a clean tooth surface is prepared at the time of bonding. You may consider that the patient undergo a thorough prophy cleaning within 10 days prior to the bonding appointment.

At the time of bonding, follow up with a supragingival prophy in the area of the tooth to be bonded. This two-step approach may allow the gingival tissue to heal and minimize the gingival crevicular fluid (GCF) or blood from contaminating the tooth surface during the bonding appointment. GCF contamination may be one of many factors that contribute to bond failure.

6. Can I use a phosphoric acid etch prior to the application of Transbond Plus Self Etching Primer?

Yes. Phosphoric acid can be applied as a means to achieve a clean tooth surface, before the application of Transbond Plus Self Etching Primer.

7. Why is this technique so different from what has been taught about applying traditional etchants?

This product uses a different chemistry and technology for etching teeth. Traditional etchants are lightly painted on the enamel without rubbing. Transbond Plus Self Etching Primer must be RUBBED onto the enamel for 3 to 5 seconds in order to continue the etching process. This product will not etch properly if it is applied using the traditional phosphoric acid etchant technique.

8. Why should the material be rubbed on the enamel for 3 to 5 seconds?

RUBBING the material on the enamel delivers unreacted etchant/primer molecules to the enamel surface as they are depleted. It is very important to not just paint the product on the enamel but RUB it onto the enamel with light force. This technique actually helps with the etching process.

9. Will rubbing this product for 3 to 5 seconds damage the enamel rods?

No. This product may actually cause less enamel loss compared with traditional etchants.⁴

10. How can one product work as both etchant and primer?

The chemistry used in this product consists of a bifunctional molecule on a methacrylate base. When RUBBED onto the enamel, the etchant component will expose the enamel rods while the primer components simultaneously penetrate into those exposed rods.

Transbond™ Plus Self Etching Primer Frequently Asked Questions (continued)

- 11. How does the etch pattern using Transbond Plus Self Etching Primer compare to the etch pattern using phosphoric acid?**
The etch pattern using this product is well defined and comparable to traditional phosphoric acid etchants. See SEM comparisons of the two etch patterns in the product brochure. One of the advantages of this system is that demineralization and resin penetration occur concurrently, therefore, the etching depth and the resin penetration depth are identical.
- 12. How many teeth can be etched and primed with one disposable unit?**
One unit contains enough material for bonding one arch only.
- 13. How long can the etchant/primer be left on the tooth before bonding?**
After applying the etchant/primer and delivering a gentle air burst, the tooth is ready to be bonded. Bonding can be delayed for up to 2 minutes if the tooth has not been contaminated with moisture or saliva. If bonding is delayed for more than 2 minutes or moisture/saliva contamination is imminent, then another application of etchant/primer and gentle air burst is recommended.
- 14. What happens to the debris or the residue after etching?**
The residue produced during the etching process is either blown away with the excess primer (during the air burst step) or is incorporated into the matrix during light curing. This process does not affect bond strength.
- 15. How will I know that sufficient etching has been achieved? Will a frosty look appear on the enamel?**
No. The enamel will not look frosty white. It should however look uniformly shiny after the gentle air burst step. Also, enamel ridges may be visible on the etched surfaces.
- 16. How will I know that the etchant has been inactivated?**
Reaction with the enamel, the air burst step and light curing all work together to ensure the deactivation of the etching process.
- 17. Why is a 2-second air burst required after rubbing the Transbond™ Plus Self Etching Primer onto the tooth surface?**
The 2-second airburst is necessary to thin out the primer on the tooth surface and evaporate the water component to ensure good bond strength.
- 18. What will happen if the air burst step is not delivered?**
The bond strength will be lower if the 2-second airburst is not delivered.
- 19. What will happen if the gentle air burst is delivered toward the gingiva?**
This product is corrosive (see MSDS). It also contains methacrylates which in some patients can cause sensitive or allergic reaction if the chemical contacts tissue. Contact with gingival tissue can also stimulate weeping of the gingival crevicular fluid onto the bonding area. Therefore, when delivering the air burst after the etching process, it should be a gentle air stream directed across the tooth, mesial to distal.
- 20. Can this material cause allergic sensitivities?**
The product contains methacrylated phosphoric acid esters. Contact with skin or mucous membranes may cause irritation or allergic reaction in some individuals. Gloves must be worn when handling this product. Thoroughly rinse accidentally exposed areas with water. Contact a physician if irritation persists.
- 21. What will happen if the primer is light-cured after the gentle air burst step, but before bonding?**
Light-curing before bonding will not lower bond strength, however, it is not necessary.
- 22. Why does the applicator have to be inserted back into the reservoir before each application?**
The applicator has to be inserted into the reservoir before applying on each tooth so that it can be saturated with a fresh supply of the material.
- 23. Can this product be used with metal and ceramic brackets?**
Yes. Follow bracket manufacturers' recommendations for use.
- 24. Can this product be used with indirect bonding if only light-cured adhesives and resins are used?**
It is not recommended to use this product for indirect bonding with chemical cure systems.

Transbond™ Plus Self Etching Primer

Frequently Asked Questions (continued)

25. Is there a bond strength difference between bonding to dry vs. moist teeth?

No. Bond strength is similar whether the product is applied to dry or moist teeth.^{1,2,3}

26. Does the adhesive need to be refrigerated when not in use?

No. The product should be stored at ambient temperatures, away from sources of light.

27. What is the shelf life of Transbond Plus Self Etching Primer?

The shelf life of the product is 18 months from date of manufacture. The product expiration date is printed on the packaging.

28. Can a LED curing light be used with this product?

Yes, testing has been done in the lab using the Ortholux™ LED Curing Light. The testing showed good bond strength with the light. The formulation contains camphorquinone (CPQ). CPQ is the photoinitiator in most light-curable adhesives and primers. CPQ is activated by lights covering the 430-480 nm range. This enhances the compatibility of Transbond Plus Self Etching Primer with most light-curing systems.

29. Can the applicator be bent?

Yes. The applicator is bendable at the tip so that it can be used at any angle to facilitate application.

30. If there is enough material left in the blister can it be used for rebonding another patient?

No. Do not use one unit on two patients. Doing so will cause cross contamination between patients.

31. What solvent is used in this product?

Water is the only solvent used in this product.

32. Does this product contain a filler?

No, it does not contain any filler.

33. Can this product be used with chem-cure adhesives such as Unite™ Adhesive, Concise™ Adhesive or Sondhi™ Indirect Resin A and B?

Test results indicated lowered bond strengths with all chem-cure adhesives. Therefore, we do not recommend this product be used with these adhesives.

34. How can I clean instruments or clothing if the material is accidentally spilled?

It is best to wash instruments or clothing immediately if accidentally contaminated with uncured material. Cured material can be very difficult to remove. Ethanol may be useful for cleaning dried materials. Rinse skin and eyes immediately for 15 minutes in case of accidental exposure.

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2 Asgari, S., Salas, A., English, J., Powers, J., Clinical Evaluation of Bond Failure Rates with a new Self-Etching Primer, JCO, Vol. 36, No. 12, 2002.

3 Rajagopal, R., Padmanabhan, S., Gnanamani, J., A Comparison of Shear Bond Strength and Debonding Characteristics of Conventional, Moisture-Insensitive, and Self-etching Primers In Vitro, Angle Orthodontist, Vol. 74, No. 2, pp. 264-268, 2004.

4 Hosein, I., Sherriff, M., Ireland, A.J., Enamel loss during bonding, debonding, and cleanup with use of a self-etching primer, AJO/DO, pp. 717-723, December 2004.

70-2021-3926-0

Transbond™ MIP Moisture Insensitive Primer Frequently Asked Questions

1. What does Moisture Insensitive Primer mean?

Literally, it means “not physically or chemically sensitive to small quantities of moisture.” Clinically, it means “after rinsing and thoroughly removing etchant, drying of tooth surface before priming is not required.”

2. What will happen if I apply Transbond™ MIP moisture insensitive primer to dry teeth?

Bond strength will not be affected.

3. Should I dip the applicator in the Transbond MIP primer before coating each tooth?

Yes. Dip applicator and completely saturate the brush tip in the primer before coating each tooth to ensure adequate coverage of etched surface. Adequate coverage is necessary to ensure bond strength.

4. What if there is water/saliva contamination after the application of the Transbond MIP primer?

If bonding is delayed and moisture contamination occurs after the application of primer to the tooth surface, apply one more fresh coat of primer over the contaminated area, blow air for 2-5 seconds and bond immediately.

5. Why should I blow air on each tooth for 2-5 seconds after applying the Transbond MIP primer?


Blowing air for 2-5 seconds helps force the primer into the enamel rods and distributes the primer evenly, ensuring adequate bond strength. Ethanol is also evaporated.

6. Is Transbond MIP primer compatible with all Transbond brand light cure adhesives?

Yes. Transbond MIP primer works with Transbond™ XT Light Cure Adhesive, Transbond™ LR Adhesive for Lingual Retainers Capsules, Transbond XT syringes, and APC™ PLUS Adhesive Coated Appliance System.

7. Is Transbond MIP primer compatible with the chemical cure adhesives?

Yes. Transbond MIP primer has been qualified for both Concise™ Chemical Cure and Unite™ Chemical Cure Adhesives as well as Sondhi™ Rapid-Set Indirect Bonding Adhesive. Please follow the Instructions for each of the above mentioned adhesives.

Transbond™	MIP Primer	XT Primer
		
Environment		
Dry	Yes	Yes
Moist-Water	Yes	No
Moist-Saliva	Yes	No
Application		
Amount	Liberal Coat	Thin Coat
Air Blow Primer	Yes	Only if excess applied
Light Cure Primer	No	Only if excess applied

70-2021-3900-5

Transbond™ PLUS Color Change Adhesive

Frequently Asked Questions

1. Is Transbond™ PLUS Color Change Adhesive color changing?

Yes. The adhesive initially appears pink. After light curing the color fades away.

2. Is Transbond PLUS adhesive light curable?

Yes. It is a light curable adhesive.

3. What is the advantage of color changing adhesive?

The adhesive flash is visible at bracket seating. Therefore, it facilitates flash clean-up.

4. Is Transbond PLUS adhesive moisture tolerant?

Yes. It contains hydrophilic monomers. In addition, using Transbond™ Plus Self Etching Primer or Transbond™ MIP Primer, both moisture-tolerant primers, along with Transbond PLUS adhesive will provide a complete moisture-tolerant bonding system. Using a hydrophobic primer with the Transbond PLUS adhesive will not provide a moisture-tolerant system.

5. Is the color of the adhesive a curing indicator?

No. The color change does not indicate curing of the adhesive. Under ambient light, the pink color fades away several minutes before the adhesive cures.

6. Is the consistency of Transbond PLUS adhesive comparable to Transbond™ XT adhesive?

Transbond PLUS adhesive has been designed to be similar to Transbond™ XT adhesive in consistency. You might find however, that adhesive flash may feel tackier.

7. After seating brackets coated with Transbond PLUS adhesive, is there a way to slow the fading of the pink color?

Yes. Covering the patient's mouth with a dark cover will retard the fading of the pink color.

8. Can the colored Transbond PLUS adhesive stain the teeth?

No. Transbond PLUS adhesive color fades with light exposure and will not stain teeth. The color will not return during treatment.

9. Can Transbond PLUS adhesive flash left on the tooth discolor?

Yes. Similar to other hydrophilic adhesives, Transbond PLUS adhesive absorbs water with dissolved food colors and dyes. If adhesive flash is not completely removed or if adhesive is not covered with an orthodontic appliance, it may discolor depending on patient's diet and dental hygiene. If this happens, the adhesive can be removed using a handpiece.

10. Is the bond strength of Transbond PLUS adhesive comparable to Transbond XT adhesive?

Yes. Under similar test conditions Transbond PLUS adhesive and Transbond XT adhesives have comparable bond strengths.

11. Does Transbond PLUS adhesive require the use of a primer?

Yes. It is important to use a primer with this adhesive.

12. Is Transbond PLUS adhesive compatible with Transbond XT, Transbond MIP and Transbond Plus Self Etching Primers?

Yes. Transbond PLUS adhesive has been tested and is compatible with these primers.

13. Can Transbond PLUS adhesive be used with metal and ceramic brackets?

Yes. Transbond PLUS adhesive can be used with both types of brackets.

14. How long after curing should I wait before placing the archwire?

The archwire can be placed immediately after curing all brackets.

15. What are the storage conditions for Transbond PLUS adhesive?

It should be stored between 2-27° C (35-80° F). The adhesive should be used at room temperature.

Transbond™ PLUS Color Change Adhesive Frequently Asked Questions (continued)

16. Can I add Transbond™ PLUS Adhesive to APC™ PLUS or APC™ II Adhesive Coated appliances?

Yes. Transbond™ PLUS adhesive is compatible with both APC™ PLUS and APC™ II adhesives.

17. What will happen if the syringe or capsules are not capped immediately after use?

If exposed to ambient light the pink color at the tip of the syringe or capsule will begin to fade. Also, the adhesive at the tip of the syringe or capsule will begin to cure and harden.

18. The brackets were pasted with the Transbond PLUS Color Change adhesive prior to bonding but the pink color has faded, what can I do?

The brackets should be pasted at chairside just prior to bonding. If they are pasted before tooth preparation and left under ambient light, the pink color will begin to fade. Please note that a faded color is NOT an indication of cure. If the adhesive has not hardened, it can still be used for bonding without the visual advantage of the colored adhesive.

19. What is the expiration date for Transbond PLUS adhesive?

Transbond PLUS adhesive has a 3-year expiration.

70-2021-3951-8

Transbond™ Supreme LV Low Viscosity Light Cure Adhesive

Frequently Asked Questions

1. How can I cure the Transbond™ Supreme LV Low Viscosity Light Cure Adhesive?

The adhesive can be cured with any high intensity orthodontic curing light that emits light in the 450 to 470 nm range. When curing the adhesive over an IDB tray the curing tip must be held flush against the tray.

2. Is Transbond Supreme LV Adhesive moisture tolerant?

No, the adhesive is not moisture tolerant.

3. Does Transbond Supreme LV Adhesive release fluoride?

No, this adhesive does not release fluoride.

4. Is Transbond Supreme LV Adhesive a flowable adhesive?

Yes, the adhesive contains a rheological modifier that gives it unique flowable characteristics. It is very soft when extruding from the syringe but is very stable when placed on bracket.

5. Is Transbond Supreme LV Adhesive nano-filled?

Yes, the adhesive contains a 3M nanofiller which gives Transbond Supreme LV Adhesive excellent strength, flow and wear properties.

6. What kind of fillers does Transbond Supreme LV Adhesive contain?

The adhesive contains a combination of silica and zirconia nanofillers at a variety of particle sizes, from 5 to 75 nm.

7. How should the teeth be prepared for bonding with Transbond Supreme LV Adhesive?

The tooth surface should be clean and free of gross plaque and salivary pellicle. Standard etching techniques of phosphoric acid should be used. Alternately teeth can be treated with Transbond™ Plus Self Etching Primer after cleaning the teeth.

8. What adhesives must be used to create the custom resin bases for indirect bonding with Transbond Supreme LV Adhesive?

The custom resin bases necessary for indirect bonding can be created from most available orthodontic bonding adhesives. 3M recommends the use of Transbond™ XT Light Cure Adhesive or the APC™ II Adhesive System.

9. Can Transbond Supreme LV Adhesive be used to direct bond brackets?

While the strength of Transbond Supreme LV Adhesive is adequate for direct bonding, most clinicians will find that the flowable nature of the adhesive is not optimized for bracket stability and flash clean up required of direct bonding.

10. Can Transbond Supreme LV Adhesive be used to indirectly bond metal and ceramic brackets?

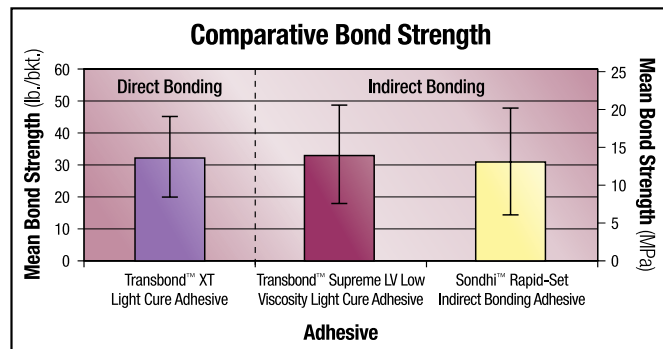
Yes. Because the adhesive bonds directly to the custom resin base and not the bracket bonding base, it can be used with all orthodontic brackets.

11. How much Transbond Supreme LV Adhesive should be placed on the back of each bracket in the indirect bonding tray?

Apply just enough adhesive and spread to cover the base as thin as possible to minimize adhesive flash.

12. How does the bond strength of Transbond Supreme LV Adhesive compare to Transbond XT Light Cure Adhesive or Sondhi™ Rapid-Set Indirect Bonding Adhesive?

The bond strengths are comparable when upper central Victory Series™ Brackets are tested on bovine teeth in the laboratory setting (see graph).



Source: 3M labs. Tested with upper central Victory Series™ Brackets.

Transbond™ Supreme LV Low Viscosity Light Cure Adhesive Frequently Asked Questions (continued)

13. Can Transbond Supreme LV Adhesive be used to bond lingual retainers?

Clinicians may find the flow and polishing properties of Transbond Supreme LV Adhesive to their liking for bonding lingual retainers or other orthodontic applications where a flowable adhesive is indicated.

14. Is Transbond Supreme LV Adhesive compatible with all 3M primers?

Yes. Transbond Supreme LV Adhesive has been tested in the laboratory and found to be compatible with Transbond™ XT Primer, Transbond™ MIP Primer and Transbond™ Plus Self Etching Primer.

15. How can the adhesive flash be removed from the enamel surface after the indirect bonding tray is removed?

Adhesive flash should be removed carefully with a carbide bur, so as not to damage the enamel or disturb the bonded bracket.

16. What is the curing time for Transbond Supreme LV Adhesive when cured through the clear or translucent indirect bonding tray?

The recommend curing technique for Transbond Supreme LV Adhesive is 10 seconds from the mesial and distal sides of each bracket through the clear or translucent tray using an Ortholux™ LED Curing Light, or 6 seconds from the mesial and distal sides of each bracket through the clear tray or translucent tray using an Ortholux™ Luminous Curing Light.

17. Can the dispensing tips be used on more than one patient?

No. The dispensing tips are disposable and are meant to be used on only one patient setup. Additional tips can be reordered as REF 712-045.

18. What are the storage conditions for Transbond Supreme LV Adhesive?

Transbond Supreme LV Adhesive should be stored between 2-27°C (35-80°F) and used at room temperature 20-25°C (68-77°F). Store away from direct light.

70-2021-3959-1

Indirect Bonding Frequently Asked Questions

1. Does APC™ PLUS Adhesive have comparable bond strength to APC™ II Adhesive when using the indirect method?

Yes. APC™ PLUS adhesive and APC™ II adhesive provide similar bond strength when used with the Sondhi™ Rapid-Set Indirect Bonding Adhesive System.

2. Are there any special requirements needed to prepare the stone model for use with APC PLUS adhesive?

Following the Sondhi Indirect Bonding Technique*, after pouring the ortho stone into the impression, the model should be dried. This can be accomplished by drying overnight in an oven at 110° F (43° C), or under ambient conditions. Because of the hydrophilic nature of APC PLUS adhesive, using a damp model may negatively affect the curing of the custom resin base.

3. How important is the secondary curing of the brackets after removing the tray from the stone model?

The primary curing of the adhesive, especially when metal brackets are used, on a stone model is never complete because of the opacity of the model. Therefore, it is strongly recommended that a 2-minute secondary cure of the custom resin base be performed by directly exposing the tray to the light source.*

4. After removing the tray from the stone model, rinsing, and drying, the APC PLUS adhesive resin appears cloudy white (Figure 1). What does this mean?

The white color is caused by water interacting with a surface layer of hydrophilic APC PLUS adhesive resin. This very thin, white layer can be microetched or cleaned prior to bonding and should not present a problem.



Figure 1: White layer on resin base

5. I use Clarity™ Ceramic Brackets with APC PLUS adhesive for indirect bonding and do not observe a white layer over the custom resin base. Why?

This white layer is less noticeable with ceramic brackets than with metal brackets because a more thorough cure is obtained during the primary cure with ceramic brackets.

6. How should the tray be prepared for bonding?

Following the current technique, the custom resin base should be cleaned using a microetcher (50 micron alumina particles) by gently passing the nozzle over the custom resin bases and then rinsing with de-ionized water to remove residue (Figure 2). As with APC II adhesive, take care not to damage the custom resin base. Microetching may not completely eliminate the white layer, but will create a roughened surface for bonding.

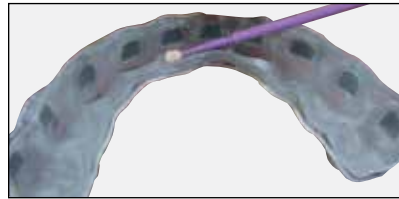


Figure 2: Tray after microetching

7. Will microetching the white layer affect the custom resin base?

No. The white surface comes from a thin layer covering the custom resin base. Lightly microetching will not damage the adhesive base and will ensure a roughened base for bonding.

8. I do not own or use a microetcher. How can I clean the custom resin base prior to bonding?

If a microetcher is unavailable, thoroughly scrubbing the custom resin base with a toothbrush is also an effective cleaning method. Although the cloudy white layer may remain, adequate bond strength will be achieved.

9. What will happen if I bond using APC PLUS adhesive without microetching or cleaning the custom resin base?

As with APC II adhesive, omitting the cleaning step may result in a reduction in bond strength.

10. Does APC PLUS Adhesive used for indirect bonding with the Sondhi Rapid-Set System have comparable bond strength to APC PLUS Adhesive used for direct bonding?

Yes. APC PLUS Adhesive used with the Sondhi Rapid-Set System provides similar bond strength to direct bonding.

* See article published by Dr. Sondhi, "Bonding in the New Millennium: Reliable and Consistent Bracket Placement with Indirect Bonding", World Journal of Orthodontics, Vol. 2, No. 2, 2001, pp 106-114.

Transbond™ IDB Pre-Mix Chemical Cure Adhesive Frequently Asked Questions

1. What are the indications for use for Transbond™ IDB Pre-Mix Chemical Cure Adhesive?

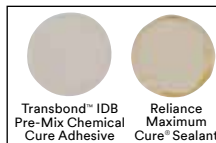
Transbond™ IDB Pre-Mix Chemical Cure Adhesive is intended to be an indirect bonding adhesive for the Incognito™ Appliance System and can also be used for indirect bonding of labial brackets with custom bases delivered to the patient in a custom tray.

2. Can Transbond IDB Chemical Cure Adhesive be used in direct bonding techniques?

Transbond IDB Pre-Mix Chemical Cure Adhesive is indicated for indirect bonding only. The low viscosity of the adhesive does not allow sufficient bracket stability for standard direct bonding techniques.

3. Is the color of the Transbond IDB Pre-Mix Chemical Cure Adhesive more aesthetic than Reliance Maximum Cure® Sealant?

Transbond IDB Adhesive exhibits less discoloration than Maximum Cure Sealant upon curing.



4. Can Transbond IDB Adhesive be used for both labial and lingual indirect bonding techniques?

Yes, Transbond IDB Adhesive is indicated for indirect bonding with the Incognito Appliance System and with labial indirect bonding that includes the use of a custom resin base.

5. How many drops of Transbond IDB Adhesive Part A and Part B should be used?

Equal drops of each adhesive should be used. Two drops of each part is usually sufficient to bond a single arch tray.

6. How is the Transbond IDB Adhesive Cured?

Transbond IDB Adhesive is a chemical cure adhesive. The curing is initiated when Part A and Part B are mixed together.

7. Is the work and set time of Transbond IDB Adhesive temperature dependant?

Yes. At room temperature, the work time is 75-90 seconds and the set time is 100-120 seconds. If used directly from the refrigerator, the work time is 135-145 seconds and the set time is 170-190 seconds.

8. Is the set time for Transbond IDB Adhesive independent of the work time?

The set time for Transbond IDB Adhesive includes the work time.

9. How does the bond strength of Transbond IDB Pre-Mix Chemical Cure Adhesive compare to Reliance Maximum Cure Sealant?

The bond strength of Transbond IDB Adhesive is equivalent to Reliance Maximum Cure Sealant in labial indirect bonding applications.

10. How long should the tray be held in the mouth?

The tray should be held firmly in position in the mouth for 3 minutes. The tray should remain seated for a total of 4 minutes before being removed from the mouth.

11. How long should I wait before placing the archwire?

Initial archwires may be placed upon removal of the indirect bonding tray and after cleaning all flash and interproximal contacts.

12. Can I use a primer with Transbond IDB Adhesive?

Although a primer is not necessary, Transbond IDB Adhesive is compatible with Transbond™ XT Light Cure Primer and Transbond™ MIP Moisture Insensitive Primer. Transbond IDB Adhesive is not compatible with Transbond™ Plus Self Etching Primer.

13. How do I store Transbond IDB Adhesive?

Transbond IDB Adhesive should be stored in the refrigerator at all times. It should be moved to the bonding station just before beginning the bonding procedure.

14. What is the shelf life of Transbond IDB Adhesive?

The shelf life is two years when the adhesive is stored under refrigerated conditions, 35° to 45°F (2° to 7°C).

15. Is the Transbond IDB Adhesive moisture tolerant?

Transbond IDB Adhesive is not moisture tolerant.

Transbond™ IDB Pre-Mix Chemical Cure Adhesive

Frequently Asked Questions (continued)

Labial Indirect Bonding:

16. Are there any special requirements needed to prepare the stone model for use with Transbond IDB Adhesive?

Follow your current laboratory procedure for preparing a stone model, positioning and bonding brackets on to the model.

17. What type of adhesive should be used to create custom resin bases?

A hydrophobic adhesive, such as Transbond XT Adhesive or APC™ II Adhesive, should be used to create custom resin bases for labial indirect bonding.

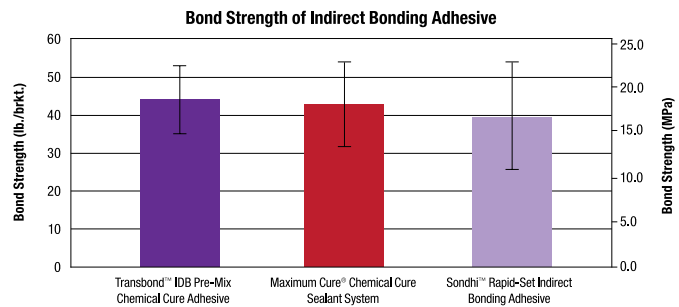
18. How should the tray be prepared for bonding?

Follow your current laboratory procedure for forming custom bases and preparing an indirect bonding transfer tray. Dr. Anoop Sondhi uses a combination hard/soft tray system made from Biocryl™ and Bioplast™. The tray material should be formed using a Biostar™ Series III or Series IV Vacuum Former.¹

19. How does the bond strength of Transbond IDB Adhesive compare to Sondhi™ Rapid-Set Indirect Bonding Adhesive?

The bond strength of Transbond IDB Adhesive and Sondhi Rapid-Set Adhesive are equivalent.

¹ Sondhi, Anoop, DDS, MS. "Bonding in the New Millennium: Reliable and Consistent Bracket Placement with Indirect Bonding." World Journal of Orthodontics Volume 2, Number 2, 2001: Pg. 106-114.



Source: 3M Laboratories

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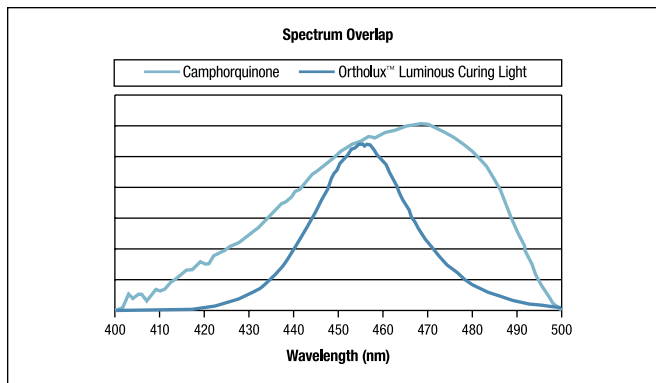
Ortholux™ Luminous Curing Light Frequently Asked Questions

1. What is the intensity of the Ortholux™ Luminous Curing Light?

The Ortholux™ Luminous curing light has an intensity of 1600 mw/cm² as measured by accepted laboratory techniques.

2. What type of light does the Ortholux Luminous curing light emit?

The Ortholux Luminous curing light emits high intensity blue light from a light emitting diode (LED) source. The emitted blue light spectrum peaks at 455 nm (+/-10 nm) and overlaps within the absorption spectrum of Camphorquinone (CPQ), the photo-initiator in all 3M light-curable orthodontic materials.



3. Is the Ortholux Luminous curing light a laser?

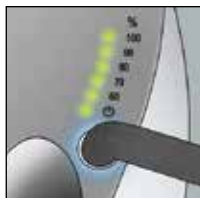
No, it is a high intensity light emitting diode (LED). The LED produces blue light in the 430-480 nm wavelength range.

4. How is the Ortholux Luminous curing light able to achieve acceptable bond strength in as little as 3 seconds?

The combination of the high intensity LED lamp and the 8 mm light guide optimized for orthodontic use allows for an efficient curing time. Reference the recommended table of curing times in Question 20.

5. How do I verify the light intensity?

The Ortholux Luminous curing light charging base has an integrated light intensity meter. Place the light guide tip on the circular testing area below the percent scale on the charger base and press the START button.



Please refer to the Instructions for Use (REF 011-635) for complete details.

6. Does the Ortholux Luminous curing light have a fan? How does it stay cool?

The Ortholux Luminous curing light does not have a fan. This feature contributes to the silent operation (excluding the audible beeps). The Ortholux Luminous curing light handpiece includes a heat sink device that dissipates the heat created by the LED.

7. Is it normal for the handpiece to feel warm to the touch during the bond procedure?

During normal use in orthodontic bonding, with frequent on and off cycles, the handpiece may begin to feel warm as the heat sink dissipates the heat from the LED. To protect the user from high temperatures, the unit will shut down automatically if the overheat protection mechanism is triggered (after approximately 7 minutes of **continuous** use). After a 5 minute cooling period the light can be used again.

8. Does the light intensity depend on the battery charge level?

No, the electronics are programmed so that a constant level of power is supplied to the LED chip every time the START button is pressed regardless of the battery charge level.

9. Can the audible beeps be turned off?

Yes, please refer to the Instructions for Use (REF 011-635) in the section – Acoustical Signals – Handpiece.

10. The eye shield looks different, why?

Compared to the eye shields of previous curing lights, the Ortholux Luminous curing light eye shield design provides a larger protection area with added functionality as a table stand.



More importantly, it is designed for mounting on the handpiece, not on the light guide, therefore positioning of the light guide during use doesn't interfere with the eye shield position.

11. Are there any additional precautions necessary to protect the patient or staff from the high intensity light produced by the Ortholux Luminous curing light?

The START button should not be pressed until the light guide is within the oral cavity. As additional protection from the high intensity light, orange safety glasses are available for both the patient and staff. Curing Light Eyewear is available from 3M, REF 704-154 or S0360X.

Ortholux™ Luminous Curing Light

Frequently Asked Questions

12. What type of battery does the Ortholux™ Luminous curing light use?

The Ortholux™ Luminous curing light uses Lithium ion batteries. Lithium ion batteries have higher charge voltage and no memory effect.

13. How do I insert the battery into the handpiece?

The battery utilizes a screw-in mechanism that permits easy insertion and removal.

14. When should the Ortholux Luminous Curing Light battery be recharged?

Because Lithium ion batteries are not subject to a memory effect, the batteries can be recharged at any time. The battery can be charged while in the handpiece or separately, as desired.

15. How many patients can be bonded with one full battery charge?

A fully charged battery has sufficient power to bond a minimum of 16 patients assuming fully banded/bonded upper and lower arches from 2nd molar to 2nd molar with metal brackets.

16. What is the lifetime of the battery?

The actual lifetime of the Lithium ion battery varies depending on the charge/recharge cycles it experiences throughout its useful life. While it is difficult to predict, the battery lifetime is estimated at 3.5 to 5 years under normal operating conditions. Replacement batteries are available in the 3M Orthodontic Product Catalog, REF 704-455.

17. What does the Power Level LED indicate?

The Power Level LED, identified by the battery icon, is an indication of the charge level of the unit. A steady green light means the battery is charged and ready for operation. A steady red light indicates low battery charge, while a flashing red light indicates the battery is fully discharged.

18. What is Sleep Mode? How can I reactivate the light?

The Ortholux Luminous Curing Light goes into Sleep Mode to preserve battery charge when the handpiece has not been used for approximately 5 minutes or when the handpiece is placed into the charger base. The handpiece can be reactivated by pressing the START button when the light is not in the charger base.

19. What is the difference between the Ortholux Luminous curing light and the Elipar™ S10 Curing Light from 3M?

The Ortholux Luminous curing light is optimized for orthodontic bonding. The light intensity is greater. The 8 mm fiber optic light guide is optimized for curing orthodontic brackets rather than dental restorations. The time settings have also been optimized to settings appropriate for orthodontic curing.

20. What are the recommended curing times for 3M Orthodontic Adhesives?

Refer to the following table for the recommended curing times.

Appliance	Adhesive	Ortholux™ Luminous Curing Light
Metal Brackets	APC™ Flash-Free Adhesive Coated Brackets	6 seconds mesial x 6 seconds distal
Ceramic Brackets		3 seconds mesial x 3 seconds distal
Buccal Tubes (direct bond)		6 seconds mesial x 6 seconds occlusal
Metal Brackets	Transbond™ XT Adhesive, Transbond™ PLUS Color Change Adhesive, APC™ II Adhesive Coated Brackets, APC™ PLUS Adhesive Coated Brackets	3 seconds mesial x 3 seconds distal
Ceramic Brackets		3 seconds through the bracket
Buccal Tubes (direct bond)		6 seconds mesial x 6 seconds occlusal
Lingual Retainers	Transbond™ LR Adhesive	3 seconds mesial x 3 seconds distal
Molar Bands	Transbond™ Plus Band Adhesive	12 seconds
	Unitek™ Multi-Cure Glass Ionomer Band Cement	(3 seconds per cusp)
Indirect Trays (Metal Brackets)	Transbond™ Supreme LV Low Viscosity Light Cure Adhesive	6 seconds mesial x 6 seconds distal through the trays
Indirect Trays (Ceramic Brackets)		6 seconds through the bracket and trays

21. How is Extended Mode (15s) of the Ortholux Luminous curing light activated?

Please refer to the Instructions for Use (REF 011-635) for instructions on setting the light to Extended Mode.

CAUTION! High intensity light always involves the production of heat. When utilizing the light in Extended Mode (15s), do not keep the light in one position.

Ortholux™ Luminous Curing Light Frequently Asked Questions

22. When would I use the 15 second Extended Mode?

The extended mode can be used in situations when extra curing time is warranted, e.g., indirect bonding. Keep in mind the possibility of heat production as described in the answer above. Do not hold the light guide over one spot for more than 6 seconds. This could lead to undesirable heat generation.

23. Some patients are sensitive to heat from the curing light. What can be done to make their experience more pleasant?

Because orthodontic patients are not anesthetized, they are more likely to feel the heat of the curing light. One technique to minimize heat may be to blow air from an air syringe on the tooth during the curing process. According to research, the air cools the tooth and helps minimize the heat from the high intensity light.*

24. How is the Tack Cure (1s) function of the Ortholux™ Luminous curing light activated?

Hold down the START button to activate the Tack Cure function regardless of the set Exposure Time. The unit emits a single one-second light pulse which allows for a short exposure to tack cure brackets. The light will return to standard operation when the START button is no longer depressed.

25. When would the Tack Cure function be useful?

The Tack Cure function can be used whenever an initial cure is warranted, as in sealing the gingival seam to help eliminate the seepage of gingival fluid into the uncured adhesive.

26. Can I cure other adhesives and cements with the Ortholux Luminous curing light?

Any orthodontic adhesive or cement containing Camphorquinone (CPQ) as the photoinitiator that is activated by light in the 430-480 nm range can be cured with the Ortholux™ Luminous curing light.

27. What are the curing times for other light cure adhesives and cements?

Consult the manufacturer's recommendations for curing times using high intensity LED curing lights.

28. What is the handpiece of the Ortholux Luminous curing light made from?

The handle is a single piece of hydroformed stainless steel.

29. How can the Ortholux Luminous curing light be cleaned?

Clean the charger, the handpiece and the eye shield with a soft cloth and, if required, a mild cleaning agent.

30. How should the fiber optic glass light guide be disinfected?

The light guide can be autoclaved following the autoclave manufacturer's recommended instructions.

31. How does the light guide mount onto the handpiece?

The light guide has a magnetic holder. Remove from the handpiece by pulling it out and reinsert by aligning the magnetic part onto the handpiece and pushing it until the light guide is magnetically seated.

32. Are there any special care techniques for the magnetized light guide?

It is recommended to remove the light guide on a weekly basis and clean both ends of the light guide with a soft cloth. Ensure that the magnetic end is free of dust and particulate matter.

70-2021-5196-8

Band Adhesives

Frequently Asked Questions



1. What is the purpose of a band adhesive?

The purpose of a band adhesive is to act as a “grout” to fill the irregularities between the band and the tooth surface.

2. Why is Unitek™ Multi-Cure Glass Ionomer band cement stronger than Transbond™ Plus Light Cure band adhesive?

Unitek™ Multi-Cure band cement is stronger because it provides both chemical and mechanical adhesion to both the band and enamel surface of the tooth.

3. Under which conditions would I need the extra strength of Unitek™ Multi-Cure GI band cement?

In some offices the extra adhesion offered by a glass ionomer is a welcome advantage where bands fit poorly, where there are isolation issues and in situations where forces greater than those normally exerted from headgear and rapid palatal expanders are expected. The trade-off is increased mixing time, increased clean-up time and increased difficulty when removing the cement from the teeth.

4. Under which conditions would I want to use Transbond Plus light cure band adhesive?

In offices where band fit, moisture control and loose bands are not an issue. In these offices, Transbond™ Plus band adhesive is the best choice for ease-of-use and ease of clean-up.

5. What is the effect of moisture on Unitek Multi-Cure band cement & Transbond Plus light cure band adhesive?

Hybrid glass ionomers, like Unitek Multi-Cure band cement, work best on a moist surface; however, glass ionomers do not tolerate additional water/saliva introduced during the curing process. Compomers, like Transbond Plus band adhesive, are not as tolerant of moisture as glass ionomers. An effort should be made to keep the tooth dry when using Transbond Plus band adhesive.

6. Will decreasing the time I light cure Transbond Plus band adhesive affect band retention?

Yes, Transbond Plus band adhesive must be cured for the full 30 seconds since there is not a chemical cure component to this adhesive. Archwires may be placed immediately after curing.

7. Will decreasing the time I light cure Unitek Multi-Cure GI band cement affect band retention?



No, since the Unitek Multi-Cure band cement also cures chemically, band strength will not be affected if archwires are not placed for 5 minutes. Five minutes is the minimum time needed for the adhesive to fully set-up chemically. If the Unitek Multi-Cure band cement is light cured for the full 40 seconds, archwires can be placed immediately.

8. Should I consider using both Transbond Plus light cure band adhesive and Unitek Multi-Cure band cement in my orthodontic practice?

Each product provides unique advantages to different banding situations. In some circumstances, one may be more suitable than the other, making both valuable tools in the orthodontic practice.

Transbond™ Plus Light Cure Band Adhesive Unitek™ Multi-Cure Glass Ionomer Band Cement

Characteristic Comparison

	Transbond™ Plus Light Cure Band Adhesive	Unitek™ Multi-Cure Glass Ionomer Band Cement
		
Banding Field		
Dry	Yes	Yes
Moist-Water	No	Yes
Moist-Saliva	No	Yes
Curing		
Light Cure	12 Seconds* 20 Seconds**	12 Seconds* 20 Seconds**
Chemical Cure	No	5 Minutes
Fluoride		
Fluoride Release	Yes	Yes
Adhesion		
Mechanical Adhesion	Yes	Yes
Chemical Adhesion	No	Yes
Mixing		
Powder/Liquid	No	Yes
Single Paste	Yes	No
Storage		
	Refrigerate	Room Temperature

*Ortholux™ Luminous Curing Light **Ortholux™ LED Curing Light

Reorder Information

APC™ Adhesive Coated Appliance System Accessories

**APC™ Inventory Dispensing System
Two Drawer Set
(Brackets sold separately)
2600-021**

**APC Inventory Dispensing System
Back-Up Storage Units
7×7
2600-032**

**Dust Cover Set for
Inventory Dispensing Drawer
2600-022**

**APC Inventory Dispensing System
Drop-in Organizer Tray
2600-007**

**APC Inventory Dispensing System
Single Drawer
2600-014**

**Label Set for Inventory Dispensing
System
2600-023**

**Reusable Set-Up Tray
(Brackets sold separately)
7×7
2600-005**

Transbond™ Plus Self Etching Primer

100 unit box
712-090

20 unit box
712-091

Standard Applicators (100/pack)
712-092

Easy Roller (1 each)
712-093

Transbond™ MIP Moisture Insensitive Primer

**Transbond™ MIP Moisture Insensitive
Primer Introductory Kit
6 ml Transbond MIP primer
1 light sensitive well
20 disposable wells
1 brush holder
60 brush tips
712-021**

**Transbond MIP Primer Bottle
6 ml
712-025**

**Light Sensitive Wells
4/pack
712-022**

**Disposable Wells
96/pack
712-023**

**Brush Holders
4/pack
704-046**

**Brush Tips
60/pack×2
1919B**

Transbond™ XT Light Cure Adhesive

**Transbond™ XT Light Cure
Adhesive Kit in Capsules
25 capsules (0.2 g each)
6 ml Transbond XT primer
1 adhesive dispensing gun
1 brush holder
60 brush tips
712-030**

**Transbond XT Adhesive in Capsules
25 capsules (0.2 g each)
712-031**

**Adhesive Dispensing Gun
712-032**

**Transbond XT Light Cure
Adhesive Kit in Syringes
2 syringes (4 g each)
6 ml Transbond XT primer
1 brush holder
60 brush tips
712-035**

**Transbond XT Adhesive in Syringes
4 syringes (4 g each)
712-036**

**Transbond XT Primer Bottle
6 ml
712-034**

**Transbond XT Adhesive
Syringe Sample
2 syringes (4 g each)
712-066**

**Disposable Plastic Dispensing Tips
25/pack
712-037**

**Brush Holders
4/pack
704-046**

**Brush Tips
60/pack×2
1919B**

**Unitek™ Etching Gel System
(Blue Tint)
(35% Phosphoric Acid)
2 gel etch syringes (3½ g each)
25 disposable plastic dispensing tips
712-039**

Transbond™ XT Primer

**Transbond™ XT
Primer Bottle
6 ml
712-034**

Transbond™ PLUS Color Change Adhesive

Transbond™ PLUS Color Change Adhesive in Syringes
2 each syringes
712-101

Transbond PLUS Color Change Adhesive in Capsules
25 each capsules
1 Adhesive Dispensing Gun
712-102

Syringe Refill
4 each syringes
712-103

Capsule Refill
25 each capsules
712-104

Syringe Sample
1 each syringe
712-105

Capsule Sample
2 each capsules
712-106

Capsule Kit with Transbond™ Plus Self Etching Primer (712-102 Plus 712-091)
712-108

Syringe Kit with Transbond Plus Self Etching Primer (712-101 Plus 712-091)
712-107

Transbond™ LR Light Cure Adhesive

Transbond™ LR Capsule Kit
25 capsules (0.2 g each)
6 ml Transbond XT primer
1 adhesive dispensing gun
1 brush holder
60 brush tips
712-033

Transbond LR Capsules
25 capsules (0.2 g each)
712-038

Adhesive Dispensing Gun
712-032

EZ3 Alastik™ Holder
Holds lingual retainer wire securely in place during bonding
10/pack
406-044

Transbond™ Plus Light Cure Band Adhesive

Transbond™ Plus Light Cure Band Adhesive Kit
5 each syringe
2 boxes disposable tips (box of 25)
712-080

Transbond Plus Adhesive Introductory Kit
1 each syringe
10 each disposable tips
712-081

Transbond Plus Adhesive Disposable Tips
25 each disposable tips
712-082

Unitek™ Multi-Cure Glass Ionomer Orthodontic Band Cement

Unitek™ Multi-Cure Glass Ionomer Band Cement Kit
35 g powder
25 g liquid
1 dispensing spoon
2 mixing pads 3"×2½"
712-050

Powder Bottle
35 g
712-051

Liquid Bottle
25 g
712-052

Dispensing Spoon
712-053

Mixing Pad (3"×2½")
5/pack
704-030

Transbond™ Supreme LV Low Viscosity Light Cure Adhesive

Transbond™ Supreme LV Adhesive Kit
2 syringes (4 g each)
20 tips
712-046

Tips
20/pack
712-045

Ortholux™ Luminous Curing Light

Ortholux™ Luminous Curing Light Kit
704-460 (US/Japan) 120V
704-450 (Europe) 230V
704-451 (UK) 230V
704-462 (AUS/NZ) 230V

Rechargeable Battery
704-455
Light Guide
704-456

Eye Shield
704-457
Curing Light Eyewear
50360X

Concise™ Orthodontic Chemical Cure Adhesive

Concise™ Orthodontic Bonding System 6 ml enamel bond Resin A 6 ml enamel bond Resin B 18 g orthodontic bonding Paste A 18 g orthodontic bonding Paste B 9 ml etching liquid (clear) 2 mixing pads, 2"×1½" 200 disposable mini-sponge applicators 1 brush holder 60 brush tips 50 spatulas 196-001	Enamel Bond Resin A 6 ml bottle 196-009 Enamel Bond Resin B 6 ml bottle 196-010 Orthodontic Bonding Paste A 18 g jar 196-002	Orthodontic Bonding Paste B 18 g jar 196-003 Etching Liquid (Clear) 37% phosphoric acid 9 ml bottle 1923
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Unite™ Bonding Adhesive

Unite™ Bonding Adhesive Introductory Kit 1 adhesive syringe (5 g) 6 ml primer 1 brush holder 1 dispensing pad, 3"×2½" 60 brush tips 712-015 Unite Bonding Adhesive Paste Kit 14 g adhesive paste (jar) 15 ml primer 1 dispensing pad, 3"×2½" 1 brush holder 60 brush tips 5 plastic spatulas 712-011	14 g jar adhesive paste 704-038 Brush Tips 60/pack×2 1919B Brush Holder 4/pack 704-046 Unite Bonding Adhesive Syringe Kit 3 adhesive syringes (5 g each) 15 ml primer 1 dispensing pad, 3"×2½" 1 brush holder 60 brush tips 712-012	Unite Adhesive 3 syringes, 5 g each, 3/pack 704-048 Liquid Primer For Unite adhesive 15 ml bottle 704-055
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Sondhi™ Rapid-Set Indirect Bonding Adhesive

Sondhi™ Rapid-Set Indirect Bonding Adhesive Kit 110 ml bottle Resin A 110 ml bottle Resin B 2 brush holders (1 orange, 1 white) 60 brush tips 12-cavity dispensing well 712-070	DVD Indirect Bonding Technique DVD 012-147 Orthodontic Consultations DVD 012-146 Sondhi TMD Examination DVD 012-145	Reorder Items 1 110 ml bottle Resin A 712-072 1 110 ml bottle Resin B 712-073 4 dispensing wells 2-cavity 712-074 Light-Tight Box 712-075	White Brush Holder 4/pack 704-046 Orange Brush Holder 4/pack 704-066 Brush Tips 60/pack×2 1919B
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Transbond™ IDB Pre-Mix Chemical Cure Adhesive

Transbond™ IDB Pre-Mix Chemical Cure Adhesive Kit 110 g bottle Part A 110 g bottle Part B 200 Applicators 20 Disposable Wells 712-120 Disposable Wells 96/pack 712-023	Transbond™ IDB Pre-Mix Chemical Cure Adhesive Reorder Items 110 g bottle Part A 712-121 110 g bottle Part B 712-122	Standard Applicators 100/pack 712-092
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