

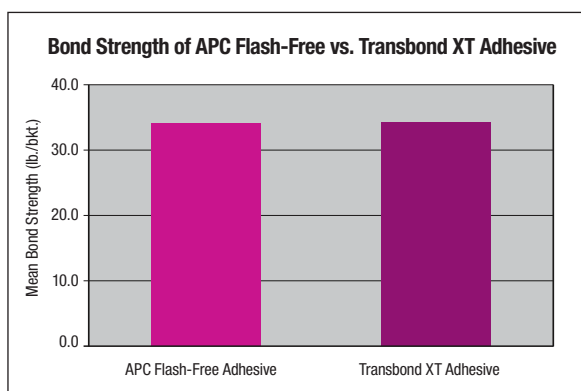
3M™ APC™ Flash-Free Adhesive Coated Appliance System

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 3M™ Transbond™ XT, 3M™ APC™ II and 3M™ 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 3M™ Ortholux™ Luminous Curing Light.

Appliance with APC Flash-Free Adhesive	3M™ 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 contains Camphorquinone which can cure under white light. Depending on the ambient light intensity in the operator, 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 adhesive resin in the nonwoven mat contains less filler than traditional adhesives. 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 seating the bracket onto 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 mat with a non-linting tissue and replace with 3M™ 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?

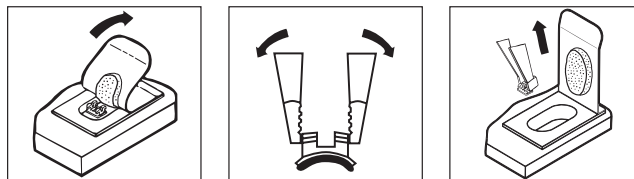
No, this adhesive does not release fluoride.

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.

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?

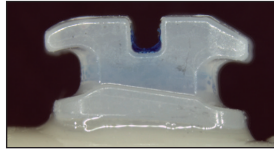
No. The excess resin is not considered flash and cleaning excess resin may interfere with proper bonding.

APC™ Flash-Free Adhesive Coated Appliance System

Frequently Asked Questions

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

The adhesive resin in the nonwoven mat contains less filler than traditional adhesives. 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 acid erosion due to microleakage.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 3M™ Transbond™ IDB Indirect Bonding Adhesive, 3M™ Sondhi™ Rapid Set Adhesive, and 3M™ Transbond™ Supreme LV Low Viscosity Adhesive.

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 filler than traditional adhesives.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.

For more information, visit 3M.com/APCFF or contact your 3M Representative today.



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SOURCES

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.

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