

DENTAL BONDING AGENTS

CLEARFIL™ Universal Bond Quick 2**FAQ****Q: What is CLEARFIL™ Universal Bond Quick 2?**

A: CLEARFIL™ Universal Bond Quick 2 is the latest Kuraray Noritake Dental Inc. universal bonding agent. While being simpler, it provides higher performance thanks to its Advanced Rapid Bond Technology. CLEARFIL™ Universal Bond Quick 2 key features are:

- Ultra-quick procedure: no waiting time after application
- Room temperature storage (2-25°C / 36-77°F)
- Easy to apply regardless of the cavity morphology
- Expanding and enhancing its universal use

Q: What is this Advanced Rapid Bond Technology?

A: The Advanced Rapid Bond Technology provides:

- Stronger bonding layer
- Higher bond strength
- No waiting time after application

This technology is possible due to its triple monomer technology:

1. Urethane tetramethacrylate monomer: this original multi-functional monomer provides an increase in the strength of the bonding layer.
2. MDP monomer: MDP synthesized and refined independently by Kuraray Noritake Dental Inc.
3. Amide monomer: highly hydrophilic; after polymerization becoming hydrophobic, and water-resistant.

Q: How does CLEARFIL™ Universal Bond Quick 2 differ from CLEARFIL™ Universal Bond Quick?

A: CLEARFIL™ Universal Bond Quick 2 is an enhanced version of CLEARFIL™ Universal Bond Quick. It keeps all the benefits of CLEARFIL™ Universal Bond Quick while providing a stronger bonding layer, easier application due to a lower viscosity, room temperature usage (2-25°C / 36-77°F), and usability with other manufacturers' cements.

Q: How is it possible to have a lower viscosity and a stronger bonding layer at the same time?

A: This is possible thanks to manufacturing process adjustments and the Kuraray original

urethane tetramethacrylate monomer.

The adjustments lowered the viscosity by changing the dispersion method, while containing the fillers. The urethane tetramethacrylate monomer improves the mechanical strength of the bonding layer.

Q: What effect will this lower viscosity have for the clinician?

A: CLEARFIL™ Universal Bond Quick 2 low viscosity provides a thin and uniform film bonding layer, regardless of the application case or morphology of the cavity.

This will help to avoid bond accumulation in corners and margins due to inadequate air blowing. It will also help the bond to flow easily into small and narrow cavities, thereby helping to avoid untreated areas. Technique sensitivity, therefore, will be reduced.

Q: What is the film thickness and how does it compare to CLEARFIL™ Universal Bond Quick?

A: CLEARFIL™ Universal Bond Quick 2 film thickness is 3-5µm.

CLEARFIL™ Universal Bond Quick film thickness is 5-10µm.

Q: What are the indications of CLEARFIL™ Universal Bond Quick 2?

A: CLEARFIL™ Universal Bond Quick 2 is indicated for the following uses:

- Direct restorations using light-cured composite resin
- Sealing of a prepared cavity or abutment tooth as a pretreatment for indirect restorations
- Treatment of exposed root surfaces
- Treatment of hypersensitive teeth
- Intraoral repairs of fractured restorations
- Post cementation and core build-ups
- Cementation of indirect restorations

Q: What etching technique should I use?

A: CLEARFIL™ Universal Bond Quick 2 can be used with total etch, selective etch, and self-etch. The clinical procedure, applying the material with a rubbing motion, is the same regardless of the etching mode.

Q: What is the clinical procedure for core build-up?

A: Apply CLEARFIL™ Universal Bond Quick 2 to the tooth with a rubbing motion, dry for more than 5 seconds by blowing mild air until BOND does not move (use a paper point if excess exists), and then light-cure. Proceed with post cementation and core build-up using CLEARFIL™ DC CORE PLUS according to the manufacturer's instructions.

Q: What is the clinical procedure for cementation?

A: Apply CLEARFIL™ Universal Bond Quick 2 to the abutment with a rubbing motion, dry for more than 5 seconds by blowing mild air until BOND does not move (use a paper point if excess exists). Follow with cementation using PANAVIA™ SA Cement Universal (there is no need to light-cure the bond).

Q: Can I use CLEARFIL™ Universal Bond Quick 2 with other manufacturer's cements?

A: Yes. Please note that in such cases, mixing with CLEARFIL™ DC Activator will be required for some steps. Please check the Instructions for Use for further details according to the procedure and manufacturer.

Q: Specifically, in which cases CLEARFIL™ DC Activator is required?

A: CLEARFIL™ Universal Bond Quick 2 requires mixing with CLEARFIL™ DC Activator when using other manufacturer’s dual- /self-cured resin core materials in the following steps:

- For post treatment
- For tooth treatment

CLEARFIL™ Universal Bond Quick 2 also requires mixing with CLEARFIL™ DC Activator when using other manufacturer’s self-adhesive resin cements for pretreatment of prosthetic restorations.

Please check the Instructions for Use for further details according to the procedure and manufacturer.

Q: Will CLEARFIL™ Universal Bond Quick 2 replace CLEARFIL™ Universal Bond Quick when using PANA VIA™ Veneer LC?

A: Yes. CLEARFIL™ Universal Bond Quick 2 will replace CLEARFIL™ Universal Bond Quick when using PANA VIA™ Veneer LC.

Q: Why does CLEARFIL™ Universal Bond Quick 2 need to be light- cured when CLEARFIL™ DC CORE Plus is used but it does not need to be light-cured when it is used with PANA VIA™ SA Cement Universal for cementing?

A: CLEARFIL™ Universal Bond Quick 2 is touch-cured with both CLEARFIL™ DC CORE Plus and PANA VIA™ SA Cement Universal. Nonetheless, when used with CLEARFIL™ DC CORE Plus, light-curing of the BOND is necessary for appropriate bond strength at the tooth structure interface because the polymerization shrinkage stress at the bonding interface is relatively high.

Q: How long does it take to cure CLEARFIL™ Universal Bond Quick 2?

A: This depends on the dental curing unit. Please refer to the table below:

Type	Light source	Light intensity	Light-curing time
Halogen	Halogen lamp	More than 400 mW/cm2	10 seconds
LED	BLUE LED*	800 - 1400 mW/cm2	10 seconds
LED	BLUE LED*	More than 1500 mW/cm2	5 seconds

The effective wavelength range of each dental curing unit must be 400 - 515 nm.

*Peak of emission spectrum: 450 - 480 nm

Q: How long can I use CLEARFIL™ Universal Bond Quick 2 after dispensing?

A: Use within 7 minutes after dispensing. Use a light-blocking plate to avoid exposing the material to an operating light or ambient light.

Q: What solvents are used in CLEARFIL™ Universal Bond Quick 2?

A: Water and ethanol.

Q: What is its pH?

A: CLEARFIL™ Universal Bond Quick 2 has a pH value of 2.4.

Q: Does CLEARFIL™ Universal Bond Quick 2 release fluoride?

A: Yes, it does.

Q: How will CLEARFIL™ Universal Bond Quick 2 be available to purchase??

A: CLEARFIL™ Universal Bond Quick 2 will be available as follows:

#4041-KA	CLEARFIL Universal Bond Quick 2 Bottle Standard Kit	CLEARFIL Universal Bond Quick 2 Bottle(5ml) x1 K-ETCHANT Syringe (3ml) x1 Accessories: Needle tip x 20, Applicator brush x50 Mixing dish x 1, Light blocking plate x1
#4042-KA	CLEARFIL Universal Bond Quick 2 Bottle Refill	CLEARFIL Universal Bond Quick 2 Bottle (5ml) x1
#4044-KA	CLEARFIL Universal Bond Quick 2 Bottle Value Pack	CLEARFIL Universal Bond Quick 2 Bottle (5ml) x3
#4046-KA	CLEARFIL Universal Bond Quick 2 Unit Dose Standard Pack	CLEARFIL Universal Bond Quick 2 Unit Dose(0.1ml) x50 K-ETCHANT Syringe (3ml) x1 Accessories: Needle tip x 20, Applicator brush x 50
#4047-KA	CLEARFIL Universal Bond Quick 2 Unit Dose Value Pack	CLEARFIL Universal Bond Quick 2 Unit Dose (0.1ml) x 100 K-ETCHANT Syringe (3ml)x 1 Accessories: Needle tip x 20, Applicator brush x 100

Q: What is the shelf-life of CLEARFIL™ Universal Bond Quick 2?

A: 27 months.