



DENTAL BONDING AGENTS

**CLEARFIL™**  
*Universal Bond Quick 2*

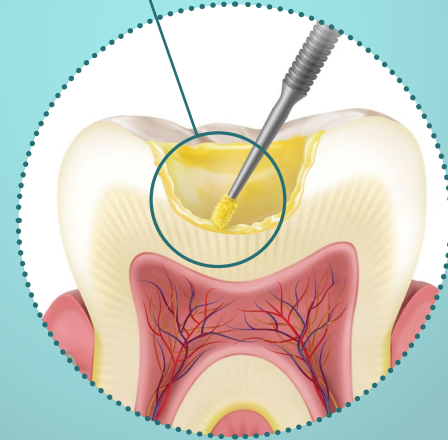
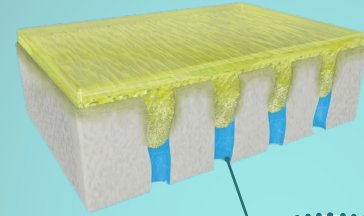


## Simple & predictable

CLEARFIL™ Universal Bond Quick 2 is the latest adhesive from Kuraray Noritake Dental, the innovative dental company that pioneered etching and chemically bonding dentin, as well as formulating the Original MDP adhesive monomer.

CLEARFIL™ Universal Bond Quick 2 provides new chemistry for next generation single-bottle adhesive dentistry.

The proprietary Urethane Tetramethacrylate (UTM) technology helps to create a strong uniform bond layer.



## Engineered to endure

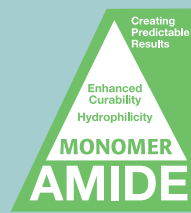
Combining MDP, Amide, and Urethane monomers, the bonding agent can bond to the dentin immediately without waiting time.

This new chemistry also enables a thin and easy application that does not affect the bond layer's strength.



### MDP

MDP synthesized and refined independently by Kuraray Noritake Dental.



### AMIDE

Highly hydrophilic and, after polymerization, hydrophobic, and water-resistant.

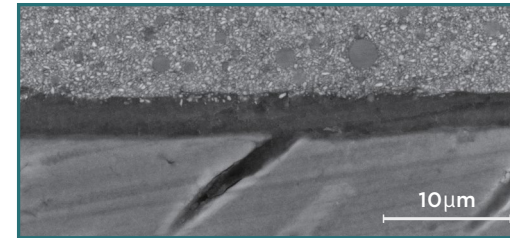


### URETHANE TETRAMETHACRYLATE

The original multi-functional monomer provides an increase in the strength of the bond layer.

## Easy to apply independent of cavity morphology

Thin adhesive layer prevents adhesive pooling in margins and abutments, and creates a uniform bond layer. Applies thinly and disperses evenly.



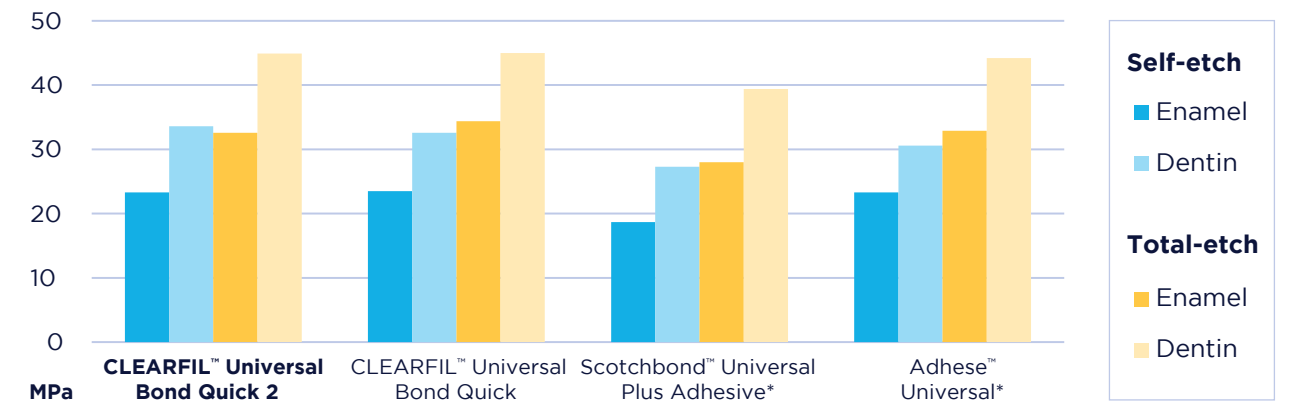
Filled with CLEARFIL MAJESTY™ ES Flow/CLEARFIL™ Universal Bond Quick 2 and visualized with Scanning Electron Microscope (SEM). Scale: 10 µm Source: Kuraray Noritake Dental Inc.

## Key features

- Quick Application & No Waiting Time
- Lower Film-Thickness
- Stronger Bond Layers
- Uniform Bond Layer (Prevents Pooling)
- Room Temperature Storage

## CLEARFIL™ Universal Bond Quick 2 exhibits high bond strength in all etching modes.

**Test conditions:** Notched-edge shear bond strength to bovine teeth (ISO29022) Adherent surface: bovine enamel and dentin #600 polished surface, Coated area: 2.38 mm dia. Irradiator: PenCure 2000 standard mode. Stored in water at 37°C for 24 hours. Shear bond strength is measured by autograph (crosshead speed: 1mm/min).



Test Methods: Notched-edge shear bond strength to bovine teeth (ISO29022)

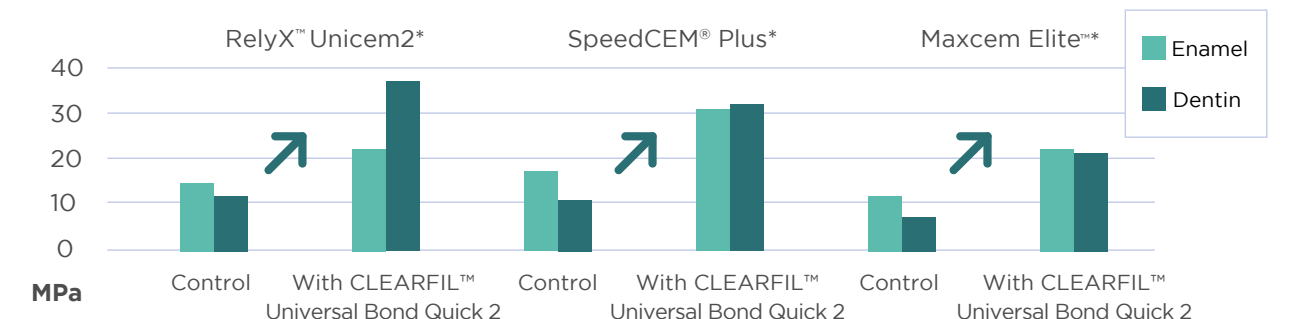
\*Not a trademark of Kuraray Co., Ltd

Source: Kuraray Noritake Dental, Inc.

## Universal self-adhesive cement compatibility

Shear bond strength to tooth structure when used in combination with other self-adhesive cement.

**Test conditions:** adherent surface: human enamel or dentin #1000 polished surface adherend area: 3 mm dia. Irradiator: PenCure 2000 standard mode. Stored in water at 37°C for 24 hours. Shear bond strength is measured by autograph (crosshead speed: 1mm/min)  
**Control:** Control: Direct application to human dentin without pre-treatment.

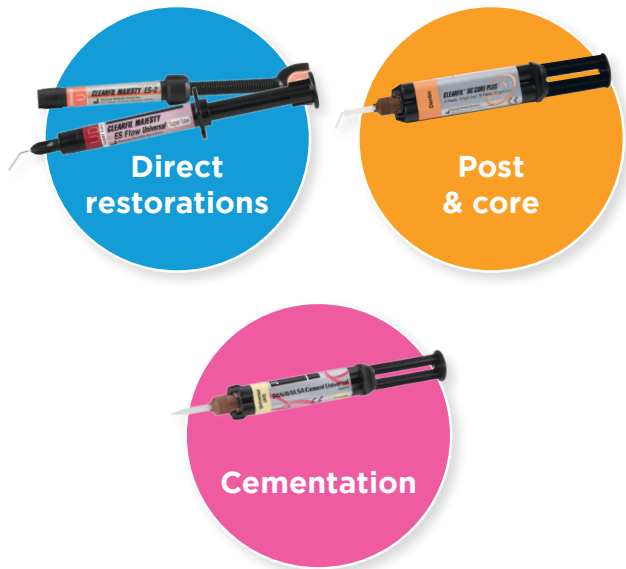


\*Not a trademark of Kuraray Co., Ltd

Source: Kuraray Noritake Dental, Inc.

In case of using other manufacturer self-adhesive cements, light-cure of CLEARFIL™ Universal Bond Quick 2 is required.  
In case of using CLEARFIL™ Universal Bond Quick 2 with PANAVIA™ SA Universal Cement, light-cure of the bond is not required.

## Simplified, universal restorative system without separate activators \*



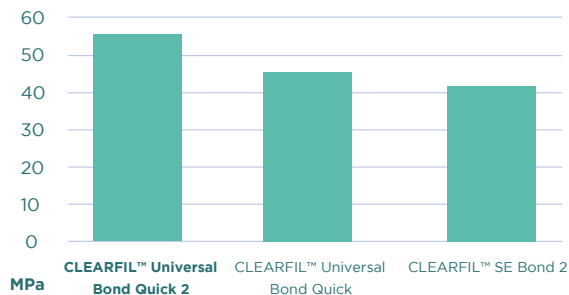
\*In cases where CLEARFIL™ DC CORE PLUS and PANAVIA™ SA Cement Universal are used. When using with other manufacturers products, please refer to the IFU for specific instructions.

## Ideal companion for immediate dentin sealing with a strong bond layer

Strong adhesive layer with higher mechanical strength will be an ideal companion to seal and protect dentin.

**Test conditions:** Samples (beam shape; 1.0 x 1.0 x 10 mm):  
 1) Light curing of bonding material with solvent distilled away  
 2) Stored in water at 37°C for 24 hours.  
 3) Ultimate tensile strength is measured by autograph (crosshead speed: 1mm/min)

### Ultimate tensile strength



K. Hosaka et al., (Tokushima Univ.)  
 The 159th Meeting the Japanese Society of Conservative Dentistry Program A7

## Direct restorations using light-cure composite resin

- Tooth pretreatment**  
Choose either etching procedure
  - Self-etching** (Move to section 2)
  - Selective-etching**  
Apply K-ETCHANT Syringe to the uncut and/or cut enamel, then rinse and dry **10sec.**
  - Total-etching**  
Apply K-ETCHANT Syringe to the entire cavity (enamel and dentin), then rinse and dry **10sec.**
- Apply BOND with a rubbing motion**  
**No waiting time**
- Dry by blowing mild air until BOND does not move\*1**  
**5sec.+**
- Light-cure\*2**
- Place composite resin, light-cure and finish**

\*1 Use a vacuum aspirator to prevent BOND from scattering.

\*2 Refer to Table below for light-curing time.

Dental curing unit and curing time			
Type	Light source	Light Intensity	Light-curing time
Halogen	Halogen lamp	More than 400 mW/cm <sup>2</sup>	10 seconds
		800-1400 mW/cm <sup>2</sup>	10 seconds
LED	Blue LED*	More than 1500 mW/cm <sup>2</sup>	5 seconds

The effective wavelength range of each dental curing unit must be 400-515nm.  
 \*Peak of emission spectrum: 450-480nm

## Ordering information

**#4041-KA**  
Bottle Standard Kit  
1-Bond (5ml)  
1-K-ETCHANT Syringe (3ml) & 20 Needle Tips  
1-Dispensing Dish  
1-Light-Blocking Plate  
50-Applicator Brushes (Fine Silver)

**#4042-KA**  
Bottle Refill  
1-Bond (5ml)

**#4044-KA**  
Bottle Value Pack  
3-Bonds (5ml each)

**#4046-KA**  
Unit Dose Standard Pack  
50 Unit-Dose  
1-K-Etchant Syringe (3ml) & 20 Needle Tips  
50-Applicator Brushes (Fine Silver)

**#4047-KA**  
Unit Dose Value Pack  
100 Unit-Dose  
1-K-Etchant Syringe (3ml) & 20 Needle Tips  
100-Applicator Brushes (Fine Silver)

## YOUR CONTACT

### Kuraray America, Inc.

32 Old Slip Phone (800) 879-1676  
 Floor 7 Fax (888) 700-5200  
 New York, NY 10005 E-mail info@kuraraydental.com  
 Website www.kuraraydental.com

- Before using this product, be sure to read the Instructions for Use supplied with the product.
- The specifications and appearance of the product are subject to change without notice.
- Printed color can be slightly different from actual color.

“CLEARFIL”, “CLEARFIL MAJESTY” and “PANAVIA” are registered trademarks or trademarks of KURARAY CO., LTD.



## Kuraray Noritake Dental Inc.

1621 Sakazu, Kurashiki, Okayama 710-0801, Japan

R Only

