

# PANAVIA™ F 2.0

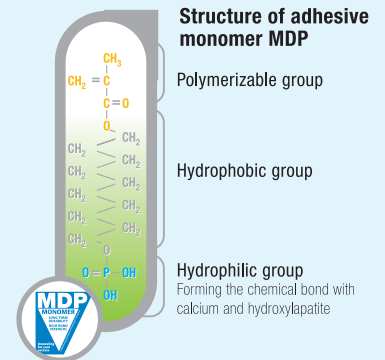
## Established experience and reputation

The PANAVIA™ brand looks upon a scientific and clinical track record of more than 20 years. Being recommended as the universal adhesive resin cement of first choice, PANAVIA™ is regarded as the guarantee for permanent adhesive techniques in the areas of high-quality and difficult restorations, of all ceramic and metal restorations as well as endodontic post cementations. PANAVIA™ F 2.0 is accepted as a premium product by leading universities, displaying a high bond strength to tooth structures, metals and ceramics. In combination with the self-etching primer system, PANAVIA™ F 2.0 reduces post-operative sensitivity and provides consistently good results. The anaerobic-curing properties whose process does not begin until direct contact with the restoration and the smooth consistency characterize PANAVIA™ F 2.0 as popular aid in daily practice for the user's self-defined working time. Even after releasing fluoride, the cement maintains its high mechanical strength due to the special surface coating technology of sodium fluoride.

## Virtually no post-operative sensitivity

### • One-step, self-etch primer “ED Primer II” significantly reduces sensitivity

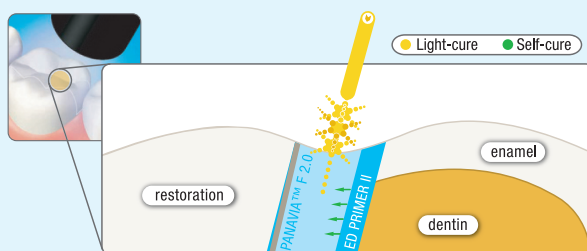
The self-etching ED PRIMER II is an advanced development – a convenient one-step procedure for etching and priming. ED PRIMER II penetrates gently and effectively enamel and dentin in one step. That enables the perfect penetration by Kuraray's well-proven adhesive monomer MDP. When PANAVIA™ F 2.0 contacts the dried ED PRIMER II surface, the paste polymerizes from the adhesion interface. This is due to the polymerization accelerators in ED PRIMER II. The unique self-etching primer system reduces the polymerization stress on the adhesion interface. The result is a favorable clinical integration as the optimal bond strength is guaranteed and the potential development of margin gaps is reduced.



### • Self-cure or light-cure

PANAVIA™ F 2.0 is a dual-cure resin cement with anaerobic properties. Thus, the excess paste of PANAVIA™ F 2.0 can be light-cured by conventional halogen or LED lights. While the cement which light cannot reach is cured by its self-curing reaction in anaerobic conditions (with the exclusion of oxygen).

### Dual-cure polymerization system with ED PRIMER II



### ED PRIMER II – in brief

- Simplified pre-treatment: the self-etching ED PRIMER II enables the effective and gentle penetration of enamel and dentin in one step.
- Prevention of post-operative sensitivity through optimally harmonized, mild pH value (pH 2.4)
- Simple and forgiving handling through the water-based primer
- Chemical bond to the hydroxyapatite is created within the clinically relevant time period.



### • Available in four color shades

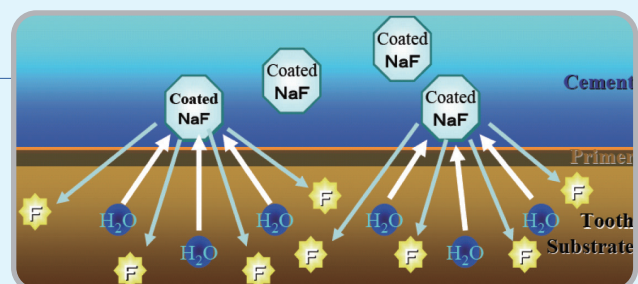
- Tooth Color : Translucent A3
- Light : A1-A2 shade
- White : Lighter than A1
- Opaque : Opaque A2.



## Fluoride releasing

### Fluoride releasing function of PANAVIA™ F 2.0

- H<sub>2</sub>O is at works with the coated NaF
- Fluoride is released from the coated NaF
- Physical property is maintained due to the special coating layer



# Bond to all substrates

## • Indication

- Cementation of crowns, bridges, inlays, onlays and veneers made of metal, ceramic and composite resin
- Cementation of adhesion bridges
- Cementation of metal cores, resin cores, metal posts or glass-fiber posts
- Amalgam bonding

## • Application

- Metal, metal alloys (e.g. gold alloy or titanium)
- Metal oxide ceramics (e.g. zirconia)
- Silica-based ceramics
- Hybrid ceramics (e.g. ESTENIA™ C&B)
- Composites

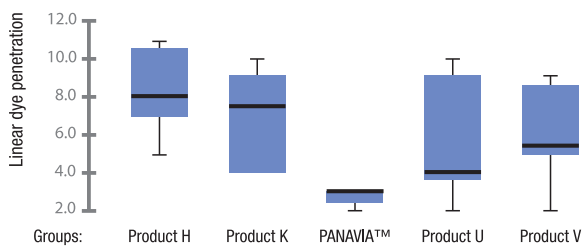
## Technical Data

	Shear Bond Strength	
	after 24 hours	after 3000 thermal-cycles
Human enamel	28.7 MPa	28.0 MPa
Human dentin	15.8 MPa	15.4 MPa
Zirconia (Cercon™)*	43.4 MPa	34.4 MPa
Alumina (Procera™)*	32.4 MPa	28.4 MPa
Gold Alloy (Type IV)**	28.0 MPa	32.3 MPa
Titanium (Titan 100)	38.8 MPa	37.6 MPa
Porcelain (VITA CELAY)***	24.9 MPa	25.7 MPa

\*Not trademarks of Kuraray \*\*with ALLOY PRIMER \*\*\*with CLEARFIL™ CERAMIC PRIMER

Source: Kuraray Noritake Dental Inc.

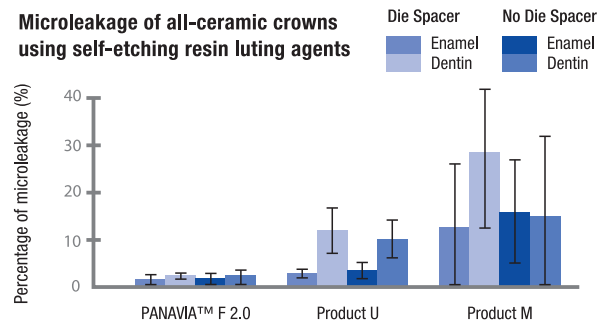
### Leakage of different luting cements for quartz-fiber post cementation



PANAVIA™ F 2.0 in combination with ED PRIMER II revealed least leakage values when DTLight quartz fiber posts were inserted. (The boxplot diagram depicts the medium values and the 25 respectively 75 percentile values of the relevant measurements of cements.)

Source: W. Dasch, M. El-Aryan, M.J. Roggendorf, J. Ebert, A. Petschelt, and R. Frankenberger, University of Erlangen-Nuernberg, Germany, 2008

### Microleakage of all-ceramic crowns using self-etching resin luting agents

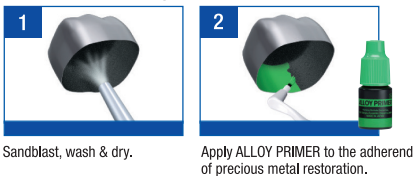


PANAVIA™ F 2.0 showed a lower degree of micro leakage than Product U and Product M at both the enamel and dentin margins. The degree of micro leakage for the die spacer group was not significantly different from the group with no die spacer technique ( $p>0.1$ ).

Source: CP Trajtenberg, SJ Caram, S Kiat-amnuay, University of Texas, Operative Dentistry, 2008, 33-4, 392-399

## Clinical procedure

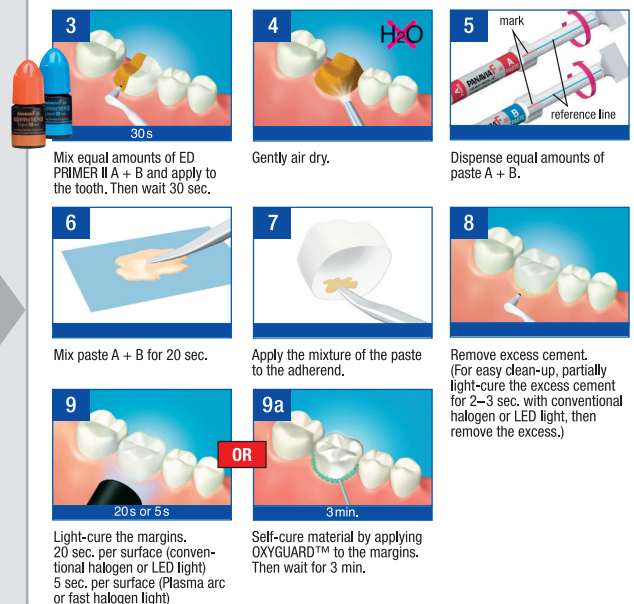
### Cementation of precious & semi-precious metal crowns, PFM crowns, bridges, inlays and onlays



### Cementation of ceramics/composite restorations



### For cementation of metal oxide ceramic restorations (e.g. zirconia), a silane pretreatment (2a, 2b) is not required due to the adhesive monomer MDP included in the paste.



- Read the Instruction for Use supplied with the product before use.
- The measurement data contained in this brochure are obtained by the results of tests performed by Kuraray Noritake Dental Inc.
- The colors of the product pastes and hardened products shown in this brochure may vary from the actual colors.
- The specifications and appearance of the product are subject to change without notice.

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