# ONE STRONG FAMILY

### **PANAVIA**

ANSWER TO ALL YOUR CEMENTATION NEEDS



# TRULY PANAVIA\*\*\*

It all started in 1983, when PANAVIA™ EX was launched as the first adhesive resin cement containing the original MDP Monomer from Kuraray Noritake Dental Inc.. The PANAVIA™ brand rapidly became popular among dental practitioners worldwide for its reliable adhesion. In order to lay the foundation for streamlined adhesive cementation procedures and excellent aesthetics, existing formulations were improved, and completely new technologies developed. All this ultimately resulted in the current line-up of easy-to-use and highly aesthetic resin cements that provide top-level bond strength.

#### THE PANAVIA™ HISTORY



# PANAVIA<sup>™</sup> FAMILY THE FORCE OF THREE

The answer to all your cementation needs! With the wide range of preferences and needs we are convinced that the PANAVIA Family will provide you with the perfect combination of cementation systems for all your needs and desires.

#### PANAVIA™ SA Cement Universal

YOUR EVERYDAY CEMENT



For those who would like to keep it as simple as possible and to replace conventional cementation for daily work. minimise the number of work steps, primers and save time during cementation without compromising your outcomes.



#### PANAVIA™ V5

STRONG AND AESTHETIC



The choice for a predictable cementation system that reliably produces an extremely strong and durable bond while providing for highly aesthetic outcomes.



#### **PANAVIA™ Veneer LC**

THE SPECIALIST



Would you like to place multiple veneers at the same time without having to run against the setting time? Specifi cally developed for such indications, PANAVIA™ Veneer LC is precisely what you need.



Inlays/ Anterior Poster onlays crowns crown













PANAVIA™ Veneer LC

PANAVIA™ V5

PANAVIA™ SA Cement Universal

# PANAVIA<sup>TM</sup> SA Cement Universal



#### **KEEP IT AS SIMPLE AS POSSIBLE!**

Would you like to minimise the number of work steps, primers and save time during cementation without compromising your outcomes? If so, then PANAVIA™ SA Cement Universal is a great option for you. Due to the integration of two specific monomers, the self-adhesive dual-cure resin cement delivers a strong and durable bond by chemically adhering to all restorative materials and tooth surfaces without the need for a separate primer. Hence, it is ideal for everyday procedures such as cementation of crowns and bridges, whether zirconia, lithium disilicate, hybrid-ceramic or even metal.

# THE EVERYDAY CEMENT

# BENEFITS & INDICATIONS

#### **BENEFITS**

- ✓ Bonds to zirconia and lithium disilicate without additional primers
- ✓ Very easy excess clean-up
- ✓ Storage at room temperature\*
- ✓ Easy application with little pressure
- Automix or handmix delivery

\*below 25°C despite the presence of silane(LCSi)

#### **INDICATIONS**

- Cementation of crowns, bridges, inlays and onlays
- Cementation of prosthetic restorations on implant abutments and frames
- Cementation of adhesion bridges and splints
- Cementation of posts and cores
- Amalgam bonding

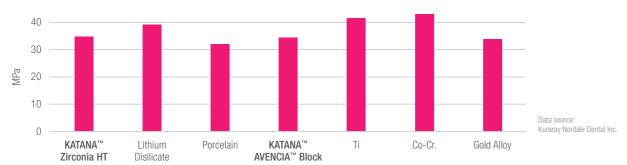
#### **TECHNICAL SPECS**

Filler loading: 62 wt % (40 vol %) Water sorption 1,2: 27 μg/mm<sup>3</sup> 91 MPa Flexural strength 1,2: Film thickness: Approx. 14 µm 4.6 GPa 170 % AI Flexural modulus 1,2: Radiopacity 2: Compressive strength 1: 301 MPa F-ion release: 67 micro-g/g 2 - 25°C / 36 - 77°F Working time (23°C): 60 sec. Storage temperature:

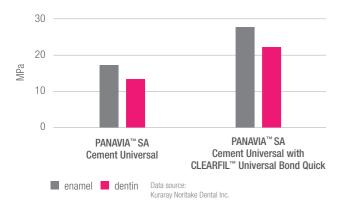
Dual curing (combination of self- and light-cure). <sup>2</sup> According to ISO 4049: 2009 Source: Kuraray Nortlake Dental Inc. The final result may be influenced by minor evaluation conditions stipulated by ISO regulations.

# PANAVIA<sup>™</sup> SA Cement Universal PERFORMANCE

#### SHEAR BOND STRENGTH TO RESTORATIVE MATERIALS



#### SHEAR BOND STRENGTH TO TOOTH STRUCTURE





CLEARFIL™ Universal Bond Quick can be used on the tooth structure to enhance the bond strength for cases with limited retention. This combination makes the usage of CLEARFIL™ DC ACTIVATOR unnecessary.



Easy Excess Removal Gum friendly, easy excess removal of cement. Always the same trouble-free clean-up result!



### THREE AESTHETIC SHADES



Universal (A2) (for all cases)



White (more value)



Translucent (more translucency)

#### **TECHNOLOGIES**

Innovative LCSi Monomer Technology in the form of a proprietary long carbon-chain silane coupling agent bonds glass ceramics, lithium disilicate, hybrid ceramics and composite resin.

Original MDP Monomer achieves chemical bonding to zirconia, metal, dentin and enamel.





#### **CEMENTATION PROCEDURE**

PANAVIA™ SA Cement Universal



#### COMPONENTS

PANAVIA™ SA Cement Universal

# PANAVIA<sup>TM</sup> V5



# CHOOSE THE STRONGEST AND MOST AESTHETIC SOLUTION FOR EVERY INDICATION

Are you looking for a predictable cementation system that reliably produces an extremely strong and durable bond while supporting highly aesthetic outcomes? If so, then PANAVIA™ V5 is your go-to solution. The dual-cure cement produces the highest bond strength and aesthetics from the PANAVIA™ cement range, allowing you to cement your restorations with confidence. Its well-aligned components are an excellent choice for a whole range of indirect restorations and for post-and-core procedures — and they are always combined and applied in the same way.

# FOR PREDICTABLE PROCEDURE

## BENEFITS & INDICATIONS

#### **BENEFITS**

- ✓ Strong and durable bond to the tooth and restoration
- Excellent aesthetics and colour stability
- Easy application, seating and clean-up
- ✓ Same components and procedure used for every indication
- ✓ Try-in pastes support predictable aesthetics

#### **INDICATIONS**

- Cementation of crowns, bridges, inlays and onlays
- Cementation of veneers
- Cementation of adhesion bridges and splints
- Cementation of prosthetic restorations on implant abutments and frames
- Cementation of posts and cores
- Amalgam bonding

#### **TECHNICAL SPECS**

Filler loading: 61 wt % (38 vol %) Film thickness  $^{1,2}$ : 12 µm Flexural strength  $^{1,2}$ : 127 MPa Radiopacity  $^{2}$ : 180 % Al Flexural modulus  $^{1,2}$ : 6.3 GPa F-ion release (28 days)  $^{1}$ : 58 µg/g Compressive strength  $^{1}$ : 310 MPa Working time (23°C): 2 min.

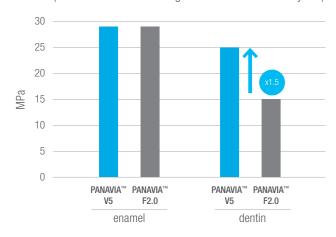
Water sorption  $^{1,2}$ : 21 µg / mm3

<sup>1</sup> Dual curing of the paste (combination of self- and light-curing). <sup>2</sup> According to ISO 4049:2009 Source: Kuraray Noritake Dental Inc. The final result may be influenced by minor evaluation conditions. See ISO regulations

## PANAVIA<sup>™</sup> V5 PERFORMANCE

#### **BOND STRENGTH TO TOOTH STRUCTURE**

(human tooth shear strength: after 3000 thermal cycles)

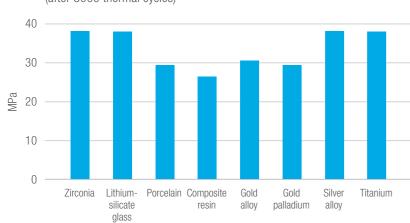


#### Measurement conditions

The specimens were human teeth polished with #1000 grit (for the shear bond strength test), and bovine teeth polished with #1000 grit (for the tensile bond strength test), over a 3 mm adherent surface area. Their margins were light cured from two directions using Pen Cure 2000 for 10 seconds each (for the shear bond strength test), or chemically cured (for the tensile bond strength test), After curing, they were immersed in 37°C water for one day, subjected to thermal cycling (4-60°C, 3000 times (TC3000) or 4000 times (TC4000), and evaluated according to type for either shear bond strength or tensile bond strength.

#### **BOND STRENGTH TO PROSTHESES**

(after 3000 thermal cycles)



#### Measurement conditions

Sandblasting (zirconia, metals other than titanium, composite resin)
Polishing with #1000 grit (porcelain, glass, titanium)

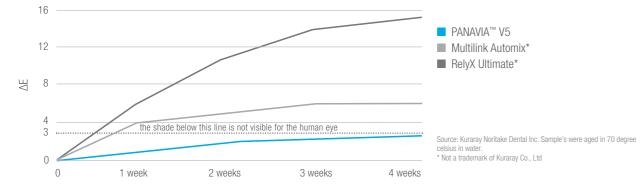
Adherent surface: 5 mm ø After CLEARHL "CERAMIC PRIMER PLUS was applied to the adherent surface, PANAVIA" V5 was applied over it and the prosthesis was held under pressure. The margins of the prosthesis were light-cured from two directions for 10 seconds each, using Pen Cure 2000. The assembly was immersed in water (37°C) for one day, subjected to thermal cycling (4-60°C, 3000 times), and then evaluated for bond strength.

#### Measuring instrument:

Autograph AG-100kN (Shimadzu) at a crosshead speed of 1 mm/min.

Measured by Kuraray Noritake Dental Inc.: The values may vary according to the measurement conditions.

#### SHADE STABILITY





### FIVE HIGHLY AESTHETIC SHADES

With a shade matching individual requirements, lifelike results are easily obtained. PANAVIA™ V5 Try-in Pastes are available in the same shades.



Universal (A2) (for all cases)



Clear (more translucency)



Brown (A4) (more chroma)



White (more value)



Opaque (more masking)

#### **TOUCH-CURE TECHNOLOGY**

Blocks the adhesive interface upon contact between PANAVIA™ V5 Tooth Primer and PANAVIA™ V5 Paste and establishes a strong bond to enamel and dentin. At the same time, it accelerates polymerization (self-curing) of the dual-cure cement for higher efficiency.



The MDP Monomer in PANAVIA™ V5 Tooth Primer and CLEARFIL™ CERAMIC PRIMER PLUS are responsible for chemical bonding to zirconia, metal, dentin and enamel.

#### **COMPONENTS**

PANAVIA<sup>™</sup> V5 Paste

PANAVIA<sup>™</sup> V5 Tooth Primer

CLEARFIL<sup>™</sup> CERAMIC PRIMER PLUS

K-ETCHANT Syringe

PANAVIA<sup>™</sup> V5 Try-in Pastes

#### **CEMENTATION PROCEDURE**

PANAVIA<sup>™</sup> V5





#### TAKE THE TIME YOU NEED FOR DEMANDING TASKS

Would you like to place multiple veneers at the same time without having to run against the setting time? Specifically developed for such indications, PANAVIA™ Veneer LC is precisely what you need. It offers an extended working time of 200 seconds\*, with the option to start light-curing whenever you are ready for it. The appropriate paste viscosity and consistency of PANAVIA™ Veneer LC provides for easy dispensing and seating. During development, great emphasis was also placed on the colour stability of the four shades, which are highly resistant to marginal discolouration and hence support long-lasting aesthetics. Easy excess removal after tack-curing and an excellent bond strength completes the picture.

\*Working time: sensitivity to light (8000 lux, ISO 4049)

# CHALLENGING TASK, GREAT SOLUTION

## BENEFITS & INDICATIONS

#### **BENEFITS**

- Optimized handling due to appropriate viscosity
- ✓ Easy clean-up after one-second tack-cure
- ✓ Undetectable margins thanks to low film thickness and spherical sub-micron fillers
- Excellent polishability and colour stability for long-lasting aesthetics
- Strong and durable bond

#### **INDICATIONS**

Cementation of ceramic and composite inlays, onlays and laminate veneers with less than 2mm thickness

#### **TECHNICAL SPECS**

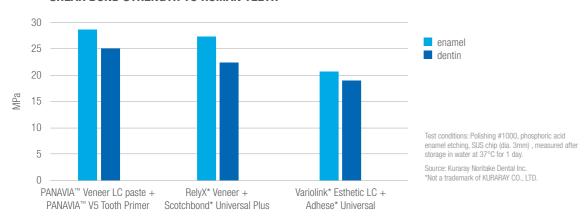
Filler loading: 66 wt % (47 vol %) Film thickness: Approx.  $8 \mu m$  Flexural strength <sup>1,2</sup>: 111 MPa Radiopacity <sup>2</sup>: 110 % Al Flexural modulus <sup>1,2</sup>: 5.4 GPa Working time <sup>3</sup>: 200 sec.

Compressive strength 1: 388 MPa

<sup>1</sup> Light-curing (combination of self- and light-cure). <sup>2</sup> According to ISO 4049. <sup>3</sup> Working time: sensitivity to light (8000 lux, ISO 4049) Source: Kuraray Noritake Dental Inc. The final result may be influenced by minor evaluation conditions stipulated by ISO regulations.

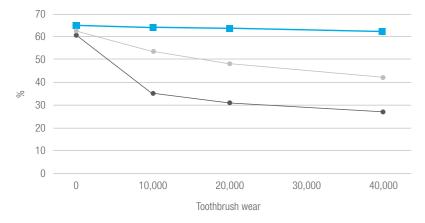
## PANAVIA<sup>™</sup> Veneer LC PERFORMANCE

#### SHEAR BOND STRENGTH TO HUMAN TEETH



#### SHEAR BOND STRENGTH TO PROSTHETIC MATERIAL 40 37 °C 1day 35 TC3000 30 25 15 Test conditions: Polishing #1000, sandblasting (KATANA<sup>N</sup> Zirconia) or hydrofluoric etching (glass ceramics), SUS chip (dia. 5mm), measured after storage in water at 37°C for 1 day, or thermal cycle at 4-60°C. 10 Source: Kuraray Noritake Dental Inc. \*Not a trademark of KURARAY CO., LTD. VITABLOCS\* Mark II KATANA™ Zirconia e.max\*

#### **GLOSS RETENTION**



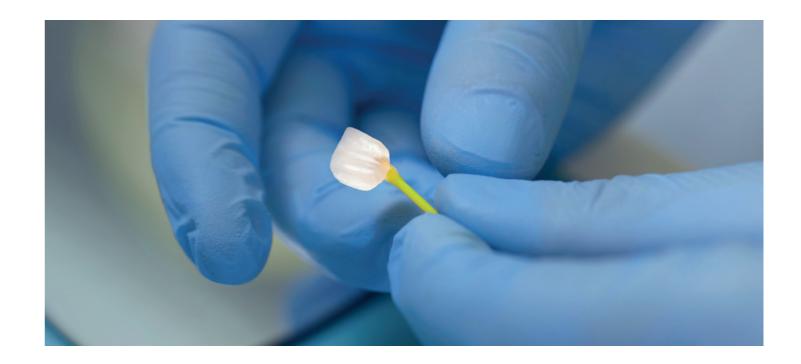
- PANAVIA<sup>™</sup> Veneer LC
- Variolink\* Esthetic LC
- RelyX\* Veneer

Test Conditions: Specimen ø10mm, thickness 2mm. After smoothing the surface with water-resistant abrasive paper of #1000 to #2500, final polishing with lapping film.

Initial value (measure the gloss level after polishing"). Toothbrush wear (measured after 40,000 strokes with 250g load, 30 strokes/minute, 10 wt% toothpaste\*).

Measured with a glossmeter VG 2000 (Nippon Denshoku Kogyo) at an angle of 60°. Note: Values may vary depending on measuring conditions. Source: Kuraray Noritake Dental Inc.

\* Not a trademark of KURARAY CO., LTD.



### FOUR HIGHLY AESTHETIC SHADES

With a shade matching individual requirements, lifelike results are easily obtained. PANAVIA™ V5 Try-In Pastes match the PANAVIA™ Veneer LC shades.



(for all cases)





Clear (more translucency)



Brown (A4) (more chroma)



White (more value)

#### **TOUCH-CURE TECHNOLOGY**

Initiates polymerization exclusively at the tooth-cement interface and establishes a strong bond to enamel and dentin, while it does not affect the setting reaction of the cement.



The MDP Monomer in PANAVIA™ V5 Tooth Primer and CLEARFIL™ CERAMIC PRIMER PLUS are responsible for chemical bonding to zirconia, metal, dentin and enamel.

#### **COMPONENTS**

PANAVIA<sup>™</sup> LC Veneer Cement
PANAVIA<sup>™</sup> V5 Tooth Primer
CLEARFIL<sup>™</sup> CERAMIC PRIMER PLUS
K-ETCHANT Syringe
PANAVIA<sup>™</sup> V5 Try-in Pastes

#### **CEMENTATION PROCEDURE**

PANAVIA™ LC Veneer





# REMOVE CONTAMINATION TO OPTIMISE YOUR ADHESIVE PROCEDURES

The quality of the bond (and with it, the performance of indirect restorations) not only relies on the selected cementation system and its proper use; clean bonding surfaces are also a prerequisite for long-term success. KATANA™ Cleaner was specifically developed to optimize adhesive cementation procedures. It has a high cleaning effect due to the surface-active characteristic of MDP Salt. Suitable for intra- and extra-oral use, it is an excellent solution for the cleaning of bonding surfaces (on teeth and restorations), which are potentially contaminated with saliva or blood after try-in.

# FOR ALL RESTORATIVE PROCEDURES

# BENEFITS & INDICATIONS

#### **BENEFITS**

- Intra- and extra-oral use
- ✓ High cleaning effect
- Easy procedure rub, rinse and dry
- Fast application 10 seconds of rubbing
- Well documented cleaning performance by universities\*

#### INDICATIONS

- Cleaning of contaminated glass ceramic, zirconia, resin restorations, metal restorations and fiber post after intraoral try-in.
- Cleaning of contaminated prepared tooth (cavity, root canal and tooth abutment), and implant abutment.

#### SHEAR BOND STRENGTH TO KATANA™ Zirconia HT

# 40 30 30 10 Before Contamination after After using KATANA™ Cleaner in artificial saliva

ubstrate surface:
fter #1000 sanding, alumina sandblasting,
overage area ø 5mm, measured at 37°C
onderwater storage for 1 day

Cement: PANAVIA™ V5

Data source: Kuraray Noritake Dental Inc.

Numerical values vary depending on measurement conditions

#### ONE HAND DELIVERY



<sup>\*</sup> Fucong T. et al., Effectiveness of different cleaning measures on the bonding of resin cement to saliva-contaminated or blood-contaminated zirconia, J Dent. 2022 Mar 3;120:104084. Taiseer A., et al., Cleaning Zirconia Surface Prior To Bonding: A Comparative Study of Different Methods and Solutions, J Prosthodont. 2022 Mar;31(3):239-244. Fucong T., et al., Effects of dentin surface cleaning on bonding of a self-etch adhesive to root canal sealer-contaminated dentine, J Dent. 2021 Sep; 112: 103766.

# ORDER INFORMATION

#### PANAVIA<sup>™</sup> V5



#### PROFESSIONAL KIT - #3600-EU

PANAVIA<sup>™</sup> V5 Tooth Primer (2 ml), CLEARFIL<sup>™</sup> CERAMIC PRIMER PLUS (2 ml), PANAVIA<sup>™</sup> V5 Paste [one syringe per shade (2.4 ml / 4.2 g): Universal (A2), Clear, Brown (A4), White, Opaque], PANAVIA<sup>™</sup> V5 Try-in Paste [one syringe per shade (1.8 ml): Universal (A2), Clear, Brown (A4), White, Opaque], K-ETCHANT Syringe (3 ml), 30 Mixing tips, 10 Endo tips (S)¹, 50 Applicator brushes (fine<silver>)¹, 1 Mixing dish (FPN)¹, 20 Needle tips (E)¹



#### STANDARD KIT - Universal (A2) #3601-EU - Clear #3602-EU

 $PANAVIA^{TM} \ V5 \ Tooth \ Primer \ (2 \ ml), \ CLEARFIL^{TM} \ CERAMIC \ PRIMER \ PLUS \ (2 \ ml), \ PANAVIA^{TM} \ V5 \ Paste \\ [one syringe per shade (4.6 \ ml \ / 8.1 \ g): \ Universal \ (A2), \ Clear], \ K-ETCHANT \ Syringe \ (3 \ ml), \ 15 \ Mixing \\ tips, \ 5 \ Endo \ tips \ (S)^1, \ 50 \ Applicator \ brushes \ (fine<silver>)^1, \ 1 \ Mixing \ dish \ (FPN)^1, \ 20 \ Needle \ tips \ (E)^1 \ Needle \ tips \ (E)^1 \ Needle \ Needle$ 



#### INTRODUCTORY KIT - Universal (A2) #3604-EU - Clear #3605-EU

 $PANAVIA^{TM} \ V5 \ Tooth \ Primer \ (2 \ ml), \ CLEARFIL^{TM} \ CERAMIC \ PRIMER \ PLUS \ (2 \ ml), \ PANAVIA^{TM} \ V5 \ Paste \\ [one syringe per shade (2.4 \ ml \ / 4.2 \ g): \ Universal \ (A2), \ Clear], \ 10 \ Mixing \ tips, \ 50 \ Applicator \ brushes \\ (fine < silver >)^1, \ 1 \ Mixing \ dish \ (FPN)^1$ 



#### REFILL

PANAVIA<sup>™</sup> V5 Tooth Primer (4 ml) #3635-EU

CLEARFIL<sup>™</sup> CERAMIC PRIMER PLUS (4 ml) #3637-EU

PANAVIA<sup>™</sup> V5 Paste (4.6 ml / 8.1 g), 20 MIXING TIPS

Universal (A2) #3611-EU Clear #3612-EU
Brown (A4) #3613-EU White #3614-EU
Opaque #3615-EU

#### PANAVIA<sup>™</sup> V5 Try-in Paste (1.8 ml)

Universal (A2) #3621-EU Clear #3622-EU
Brown (A4) #3623-EU White #3624-EU
Opaque #3625-EU

K-ETCHANT Syringe (3 ml), 20 Needle tips (E) #3252-EU Mixing tip (20 Mixing tip) #3626-EU Endo tip (S) (20 tips) #3629-EU

#### PANAVIA™ SA Cement Universal



#### SINGLE PACK HANDMIX

#4203-EU PANAVIA™ SA Cement Universal Handmix (Universal (A2))
#4203-EU PANAVIA™ SA Cement Universal Handmix (White)
#4204-EU PANAVIA™ SA Cement Universal Handmix (Translucent)
1 syringe per shade (9.2g / 5.0 ml)

#### VALUE PACK HANDMIX

#4206-EU PANAVIA™ SA Cement Universal Handmix Double Pack (Universal (A2))
2 syringes per shade (9.2g / 5.0 ml), Mixing spatula, Mixing pad



#### SINGLE PACK AUTOMIX

#4212-EU PANAVIA™ SA Cement Universal Automix (Universal (A2))
#4213-EU PANAVIA™ SA Cement Universal Automix (White)
#4214-EU PANAVIA™ SA Cement Universal Automix (Translucent)
1 syringe per shade (8.2 g / 4.6 ml), 20 Mixing tips

#### VALUE PACK AUTOMIX

#4210-EU PANAVIA™ SA Cement Universal Automix Value Pack (Universal (A2))
#4211-EU PANAVIA™ SA Cement Universal Automix Value Pack (Translucent)
3 syringes per shade (8.2g / 4.6 ml), 40 Mixing tips, 10 Endo tips (SS)



#4218-EU Mixing tips (20



1221-EU Endo tips (20 tips)

#### **PANAVIA**<sup>™</sup> Veneer LC



#4505 PASTE UNIVERSAL (A2) (2.6 g/1.5 ml) #4513-EU APPLICATOR TIP (16 g / 20 tips)

#### **PANAVIA** ™ **Veneer LC KITS**

#4500 STANDARD KIT UNIVERSAL (A2) #4501 STANDARD KIT CLEAR

#### PANAVIA™ Veneer LC Paste (2.6 g/1.5 ml)

#4505 PASTE UNIVERSAL (A2) #4506 PASTE CLEAR #4507 PASTE BROWN (A4) #4508 PASTE WHITE

#4513-EU PANAVIA™ VENEER LC APPLICATOR TIP 20 TIPS (16G)

#### **KATANA**<sup>™</sup> Cleaner

#3970-EU KATANA<sup>™</sup> Cleaner (4.0 ml)



#### Your contact

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- 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.

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