R2C™

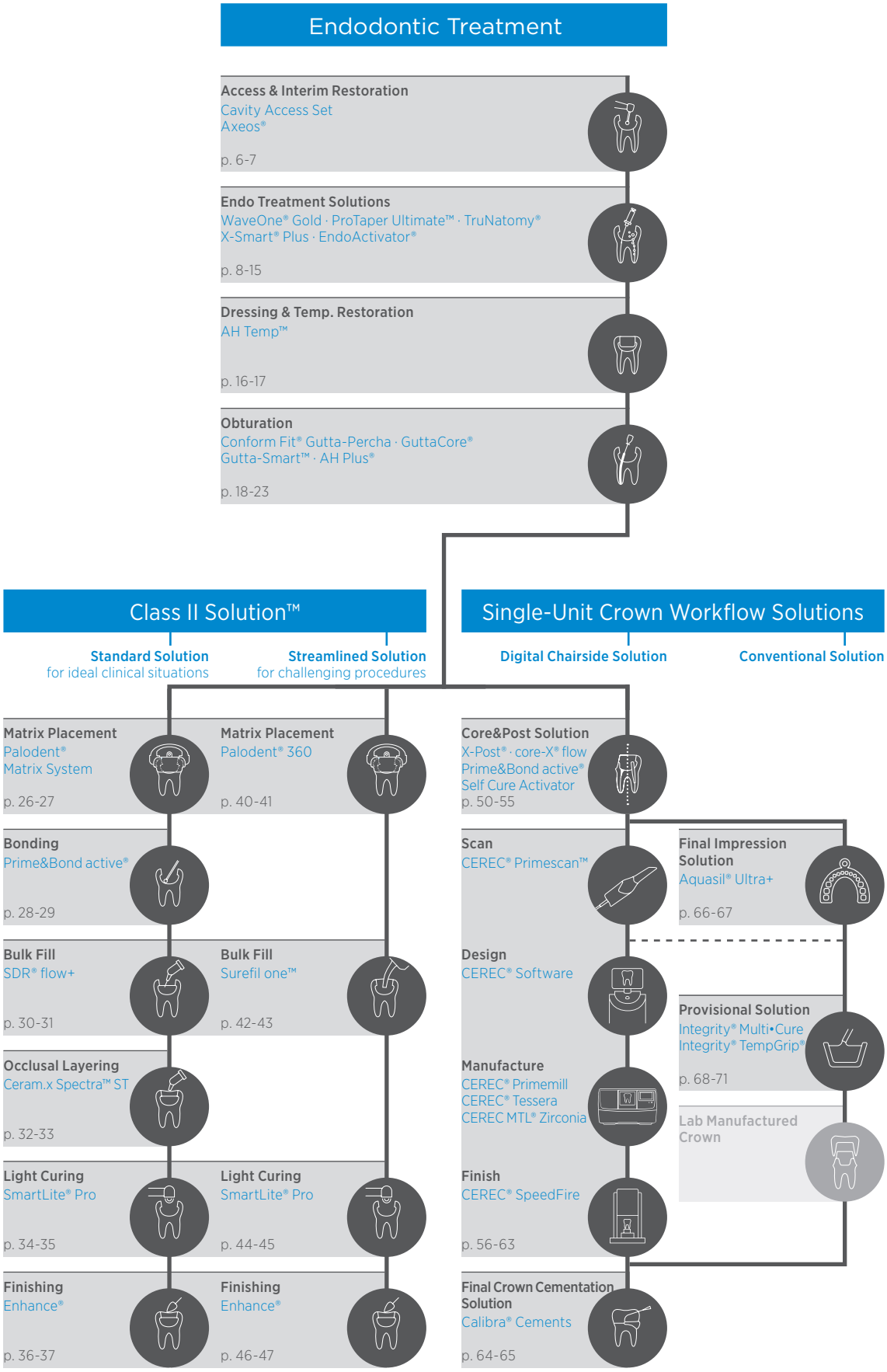
The Root to Crown Workflow

Navigator

THE DENTAL
SOLUTIONS
COMPANY™

Dentsply Sirona

The Root to Crown Workflow
Content Page



Data from a US study on 1.4 million endodontic procedures across 50 states indicates how highly effective endodontic treatment can be. After an 8 year follow up, the chance of endodontically treated teeth to remain functional over time was up to 97%!

Salehrabi, R., and I. Rotstein. "Endodontic Treatment Outcomes in a Large Patient Population in the USA: An Epidemiological Study." Journal of Endodontics 30.12 (2004): 846-50.

Access & Interim Restoration

Missed canals were reported to be the cause of endodontic failures in 42% of cases.[1]

A less than adequate access opening makes it difficult for the clinician to locate canals. The inability to treat all the canals is one of the leading causes for endodontic failure. It is crucial to enable complete, direct vision of pulp chamber floor and orifices.

Cavity Access Set

Professional Access Cavity Preparation
- A minimal number of instruments
- Clearly defined sequences for healthy natural teeth/metal restorations/ceramic restorations
- The possibility to finish the pulp chamber walls using the endo-Z or the conical diamond bur
- The X-Gates Drill combines the advantages of Gates N° 1, 2, 3 and 4 in one instrument

A0305 Cavity Access Set
A0305-1 Cavity Access Set Refills
- F0001 FG 016 Diamond Bur Round M
- E0153 FG 012 Transmetal
- E0123 FG 010 Carbide Bur Round
- E0123 FG 014 Carbide Bur Round
- F0199 FG 016 Diamond Bur Conical C
- A0008 RA X-Gates 32 mm

A305Z Cavity Access Z Set
A305Z-1 Cavity Access Z Set Refills
- F0001 FG 016 Diamond Bur Round M
- E0153 FG 012 Transmetal
- E0123 FG 010 Carbide Bur Round
- E0123 FG 014 Carbide Bur Round
- E0152 FG Endo-Z
- A0008 RA X-Gates 32 mm

[1] Hoen, Michael M., and Frank E. Pink. Contemporary endodontic retreatments: an analysis based on clinical treatment findings. Journal of Endodontics 28.12 (2002): 834-836.

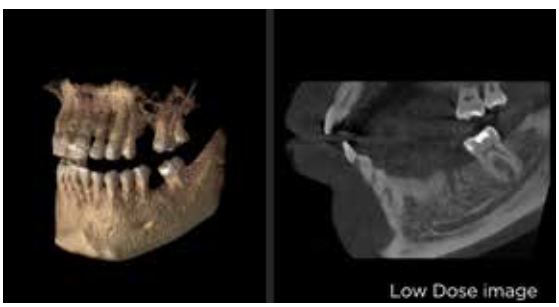
Axeos®

Highlight even smallest details
The HD mode of the Axeos® 2D/3D device is very useful in endodontic procedures to visualize and measure canals for safe treatment planning. This improves the efficiency of the workflow and can avoid the need for additional patient visits due to an overlooked canal.

Find hidden canals
All Dentsply Sirona 3D X-ray systems offer the HD mode (High-Definition), in which up to 1,400 individual images are captured during a single rotation and converted into a 3D volume with up to 80 µm. The result: low-noise images in high resolution.

Axeos® offers the right Field of View for the right case.
Axeos® preselected Fields of View will help you limit the dose while still giving you the necessary information for treatment. The Ø 5x5.5 cm FoV is the volume for endodontic treatments.

Low dose exposure for patient safety
Axeos® Intelligent Low Dose provides a 3D image in a 2D dose range. Even in low dose, a 3D image can be much more informative than the 2D alternative.



Variable tapers provide improved shaping ability.[1]

Heat treatment of nickel–titanium (NiTi) alloy produces a better arrangement of the crystal structure, thereby leading to increased flexibility and improved fatigue resistance.[2]

Establishing a glide path is an essential step to understand the anatomy of the canal to be treated. The glide path allows a rotary file to reach working length.
An improper or non existent glide path leads to:

- Increased torsional stress and the risk of file separation.
- Transportation of the canal.
- Creation of steps while instrumenting.[3]

Conventional shaping with stainless steel files has several disadvantages:

- Multiple files are necessary for adequate shaping of the root canal.
- Time-consuming shaping procedure
- Manual shaping may lead to increased canal transportation .
- Shaping of anatomically challenging root canals is complicated and frustrating.[4]

[1] Carrotte, P. "Endodontics: Part 7 Preparing the root canal." British dental journal 197.10 (2004): 603-613.
[2] Gu, Yu, et al."Various heat-treated nickel–titanium rotary instruments evaluated in S-shaped simulated resin canals." Journal of Dental Sciences (2016).
[3] J.Hong et al. "Effect of repetitive pecking at working length for glide path preparation using G-file";Restor Dent Endod. 2015 May; 40(2):123-127.
[4] A. Dhingra et al. "Simplify your Endodontics with Single File Systems - case reports"; IOSR-JDMS Vol.6, Issue 6 (May-June 2013), PP 44-51.

Choose your endo solution

Reciprocation	Continuous Rotation	
WaveOne® Gold SIMPLICITY	ProTaper Ultimate™ PERFORMANCE	TruNatomy® PRESERVATION

All Endodontics Treatment Solutions of Dentsply Sirona follows the following workflow:

Shaping

Cleaning

Obturation

BUILDING ON MAILLEFER HERITAGE

WaveOne® Gold

Experience the calming confidence of WaveOne® Gold
Root canals can be challenging. But the WaveOne® Gold treatment solution has everything you need to approach your next case with calmness and tranquility.
The result? An endodontic treatment that is a simpler (and more profitable) part of your practice. So go ahead – take on the next root canal case with confidence.

A comprehensive treatment solution in 3 simple steps:

Shaping
Safe shaping in half the time.[1] A short sequence for most of your cases including 1 glidepath and 1 shaping file. Crafted to be more forgiving, due to reciprocating motion and gold heat treatment.[2]

Cleaning
Efficient cleaning. That's what the irrigation needle as well as the EndoActivator® are designed for.

Obturation
Biocompatible seal and optimal fit. No matter if you prefer a warm or cold obturation technique our biocompatible Bioceramic Sealer supports both. Enjoy the ease with Conform Fit® Gutta-Percha (cold) or GuttaCore® (warm).

DS Motors
Because every angle, every acceleration, every speed matters to deliver the best, our motors provide the genuine reciprocating movement for WaveOne® Gold.

[1] vs. ProTaper® Universal.
[2] vs. conventional systems.

ProTaper Ultimate™

Performance Unlimited
A solution combining the latest generation of ProTaper files, enhanced disinfection and dedicated obturation that works seamlessly together.

Shaping
1 Slider-Shaper-Finishers sequence to cover a full range of anatomical situations.

- SLIDER:
  Can be used directly to start the glide path in the majority of cases (according to a user evaluation).
- SHAPER:
  ONE Shaper with an enhanced cutting efficiency and hauling of debris in the coronal two-thirds.
- FINISHERS:
  In the apical third, give the flexibility for the most challenging anatomies, without breaking or unwinding.

Cleaning
More than 25% better cleaning efficacy vs. Sodium hypochlorite soak without activation.[1]

- IRRIGATION NEEDLE:
  The irrigation needle curves and flex easily providing an efficient cleaning and disinfection until the apex.
- ENDOACTIVATOR®:
  Activated fluids promote deep cleaning and disinfection facilitating 3D obturation and long-term success.

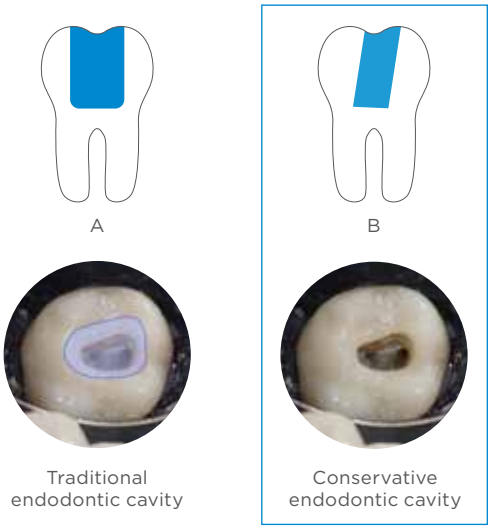
Obturation
Obturation with ideal fit 100% of the time.

- AH PLUS® BIOCERAMIC SEALER:
  Biocompatible and does not stimulate periodontal tissue.
- CONFORM FIT® GUTTA-PERCHA POINTS:
  Injection molded to match the final shape of ProTaper Ultimate™ files with precise apical tug back.

TruNatomy®

Why dentin preservation?
Research has shown that instrumentation can compromise the strength of the tooth – but this decreases as more dentin is saved.[1] In other words, part of saving more teeth is saving more tooth. TruNatomy® is a solution which let you perform root canal treatment smoothly and with control while preserving as much dentin as possible.

Preparing the canal
The TruNatomy® Orifice Modifier shapes the orifice to create the ideal entry point. No need for straight line access.[2] The design of the dedicated glide path instrument TruNatomy® Glider ensures precision with increased ease of use.[2] Our recommendation is for the orifice to be "as small as practical"[2] given the clinical case. Therefore, Conservative Endodontic Cavity (CEC) is recommended above other options.



Photos courtesy of Dr. Ahmed Salman

Shaping
TruNatomy® preserves structural dentin,[2] leaving more options for restoration and enabling longer lasting natural teeth thanks to its:

- 0.8 mm maximum flute diameter of special heat treated NiTi wire[3] – our smallest wire
- Patented off-centered cross section shaping files with regressive taper for superior efficiency[4]
- Superior canal-centering ability,[4] designed to adapt to the canal, not the other way around
- Pre-curvability and our smallest shaft with 9.5 mm enable molar access[2]

The TruNatomy® Shaping File Prime is appropriate for most cases. Two additional shaping files are available to address both smaller and larger canals.[2]

Irrigation
The TruNatomy® irrigation needle is atraumatic and can curve and flex easily to follow the root canal anatomy. The 2-sided vent design maintains a balanced irrigation solution volume for greater control throughout the canal.

Obturation
TruNatomy® Conform Fit® Gutta-Percha is variable tapered, designed to match the precise shapes created by TruNatomy® files to ensure an optimal obturation. New tapered paper points to dry TruNatomy® shapes.

1 Sedgley CM, Messer HH. Are endodontically treated teeth more brittle? J Endod. 1992 Jul;18(7):332-5.
2 Internal data on file. For more information, contact Consumables-Data-Requests@dentsplysirona.com.
3 Instead of up to 1.2 mm for most generic variable tapered files.
4 Internal data compared to ProTaper Next®.

Propex Pixi®

Small size, big benefits

- Multi-frequency apex locator for working length determination
- Takes up minimal space during treatment and transport while preserving accuracy and reliability
- Dual control of the file progression (visual control and progressive sound control with 4 volume levels)

X-Smart® Plus

User-friendly endo motor for continuous and reciprocating motion

- No foot pedal: On/Off button on the motor handpiece
- Excellent visibility and access due to the miniature contra-angle head that can be adjusted in 6 positions
- Click & go navigation
  - User friendly interface
  - Button controls dedicated to each function
- WaveOne® reciprocating motion enabling single file root canal shaping
- File selection at a single glance
  - ISO color coded file library
  - Pre-programmed settings

Endo Treatment Solutions

Regardless of the file system being used, up to 35% of the canal walls remain untouched by instruments.[1]

Tissue dissolved 12 times faster when continuously agitated as compared to no agitation.[2]

Pure mechanical instrumentation is not able to provide sufficient microbial reduction in order to create the condition for curing the apical inflammation:

- Smear layer remains after instrumentation
- Lateral canals are untouched by files
- Necrotic tissue persists after instrumentation
- Blocked areas do not allow for flow of sealer, medicaments and gutta-percha
- Failure to completely disinfect the canal can result in retreatment

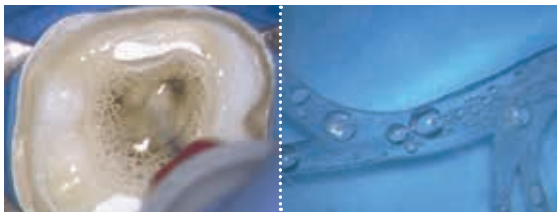
[1] Peters, O. A., K. Schonenberger, and A. Laib. "Effects of Four Ni-Ti Preparation Techniques on Root Canal Geometry Assessed by Micro Computed Tomography." International Endodontic Journal Int Endod J 34.3 (2001): 221-30.

[2] Stojicic, Sonja, Slavoljub Zivkovic, Wei Qian, Hui Zhang, and Markus Haapasalo. "Tissue dissolution by sodium hypochlorite: effect of concentration, temperature, agitation, and surfactant." Journal of endodontics 36, no. 9 (2010): 1558-1562.

EndoActivator®

Easy to use and safe solution to activate your irrigant

- Fluid activation, in well-shaped canals, plays an important role in debridement and disinfection of the root canal system
- Safe thanks to strong and flexible activator tips (medical grade polymer) with depth markings
- Single use tip and protective barrier for hygiene control (activator tips, protective barriers)



Irrigation Needle

The flexible, double-vented irrigation needle complements the treatment sequence.

- Soft polypropylene allows the needle to curve and to deliver irrigation solution close to the apex.
- Advanced technology with two lateral openings aimed directly at the dentinal walls.
- Maximize elimination of debris, smear layer and biofilm.
- Closed end reduces risk of extrusion at the apex.

De Gregorio C, Arias A, Navarrete N, Cisneros R, Cohenca N. Differences in disinfection protocols for root canal treatments between general dentists and endodontists: A Web-based survey. J AM Dent Assoc. 2015 Jul; 146(7):536-43. doi:10.1016/j.adaj.2015.01.027. PMID: 26113101.

Dressing & Temporary Restoration

Without placement of a disinfective dressing in between visits, remaining bacteria within root canals can multiply to nearly the original levels.[1]

A temporary dressing is mainly placed to reduce the bacterial load in the root canal system after instrumentation and irrigation. Its efficacy can be compromised by improper placement when the dressing is not applied in the apical third or is unable to reach the lateral canals.

Injected $Ca(OH)_2$ is twice as successful vs lentulo applied $Ca(OH)_2$.

Although canals cannot be reliably rendered bacteria free, Calcium Hydroxide remains the best medicament available to further reduce residual microbial flora.[1]

[1] Law A, Messer H: An evidence-based analysis of the antibacterial effectiveness of intracanal medicaments. J Endod. 2004 Oct;30(10):689-94.
[2] Gibson R, Howlett P, Cole BO: Efficacy of spirally filled versus injected non-setting calcium hydroxide dressings. Dental Traumatology 2008; 24: 356–359.

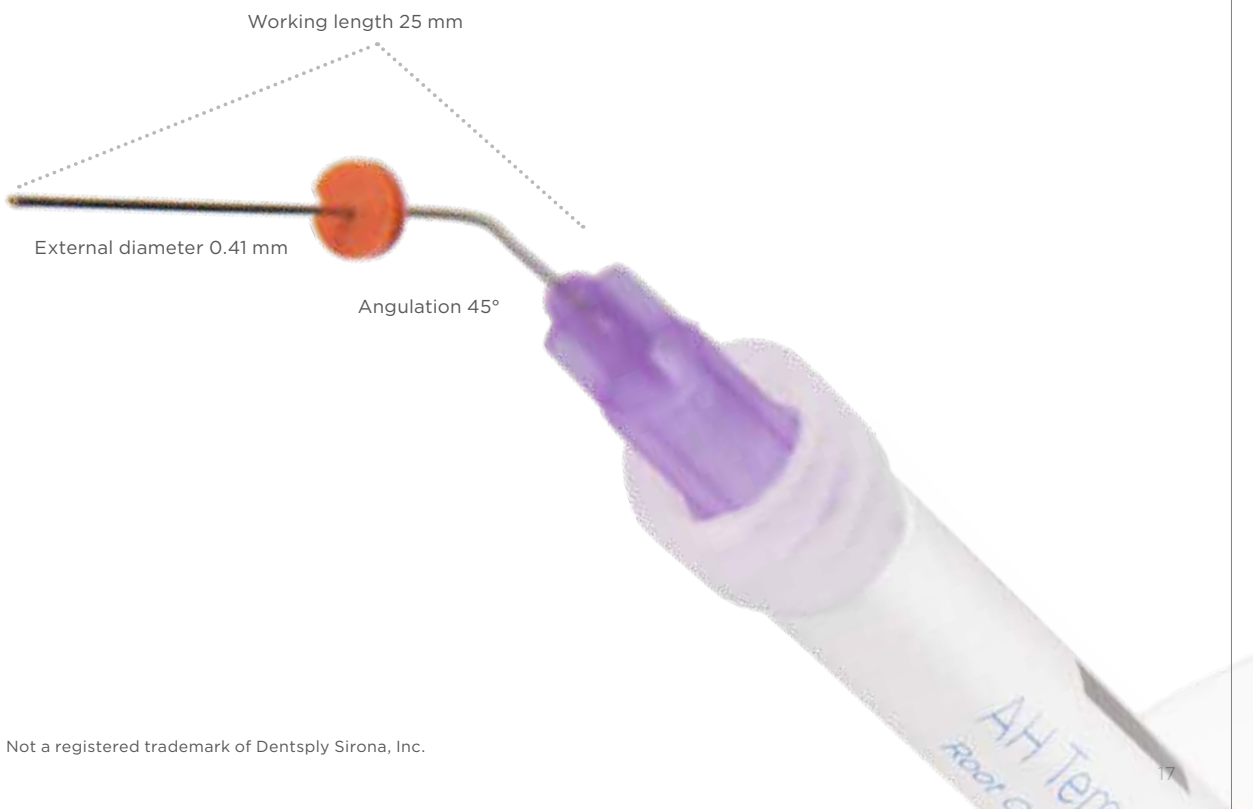
AH Temp™
Root Canal Dressing

Calcium hydroxide-based temporary root canal dressing

- Controlled application into the depth of the root canal with an ultra-thin, long and preangulated cannula with a silicone stop for length control
- Greatly reduced desiccation
- Safe with effective disinfection (high pH)
- Excellent radiopacity

AH Temp™ Cannula

Calxyl[1] Cannula



[1] Not a registered trademark of Dentsply Sirona, Inc.

Obturation

Gutta-percha sizing is inconsistent with many manufacturers.[1]

A major challenge in obturation is apical tug back. In order to reach working length, proper debridement and irrigation must occur. However, despite these precautions, the ability to reach working length is heavily reliant on the shape of the canal and a consistently matching gutta-percha and file system. Otherwise, a false sense of secure fit can occur.

[1] Mayne, John R., Stewart Shapiro, and Irving I. Abramson. "An evaluation of standardized gutta-percha points: Part I. Reliability and validity of standardization." Oral surgery, oral medicine, oral pathology 31.2 (1971): 250-257.

Gutta-Percha with Conform Fit® Technology

The right fit you can feel

- Precise, apical tug back you can feel when setting your master cone – the first time.
- Less waste and saves time because the first cone fits every time.
- Injection molded gutta-percha matches final shapes created by Dentsply Sirona File Solutions.
- Improved flow characteristics and transfers heat up to 5 mm beyond the heat source.
- Part of a Total Solution.
- Available for ProTaper Ultimate™, WaveOne® Gold and TruNatomy® Solutions.

Improved heat transfer and flow at lower temperature

Variable taper for a precise fit and accurate tug back

Modern manufacturing technique for consistent shape and quality

Latex free for enhanced patient safety

Part of a system-based solution for simplicity

Convenient tab for easy identification and handling

Obturation

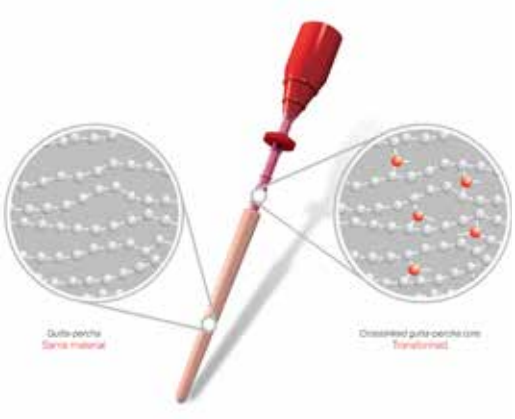
> ...root filling with no voids were found to significantly improve the outcome of primary root canal treatment.[1]

Obturation techniques which use cold lateral compaction of gutta-percha may leave gaps and voids that are clearly visible in clinical photos. These gaps between cold gutta-percha cones allow for the growth of harmful bacteria, which may result in retreatment.

Using a single-cone obturation technique will prevent some of the resulting gaps between compacted cones from occurring, however, in this method, the cone may fail to reach all points of exit. For canals with multiple apices, the material may fail to achieve a 3D fill.

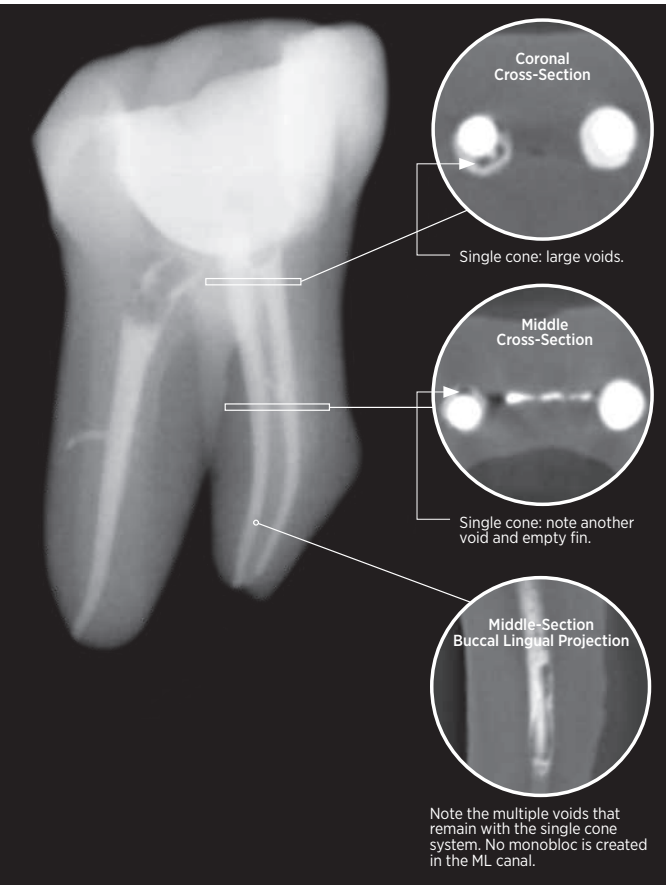
[1] Ng, Mann, Rahbaran, Lewsey & Gulabivala, Unit of Endodontology, UCL Eastman Dental Institute, University College London, London; Department of Medical Statistics, London School of Tropical Medicine and Hygiene, London; and Clinical effectiveness Unit, The Royal College of Surgeons of England, London, UK.

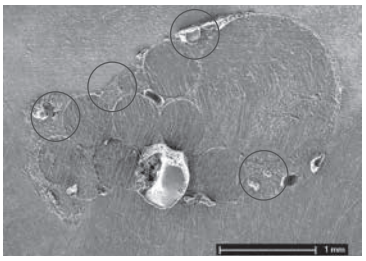
GuttaCore®



Travel challenging canals with confidence

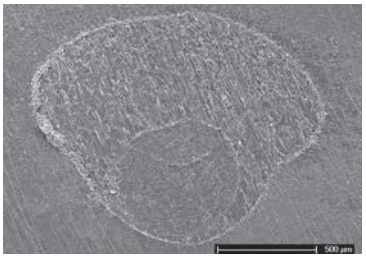
- No plastic is left in the canal making it easier to create post space and easier to retreat, saving the clinician time.
- GuttaCore® centrally compacts gutta-percha to flow equally in three dimensions – throughout the entire canal system.
- The goal of three-dimensional obturation is to provide an impermeable fluid tight seal within the entire root canal system, to prevent oral and apical microleakage.
- GuttaCore® delivers the highest gutta-percha content with fewer apical and coronal voids than cold lateral techniques.[1]
- Provides peace of mind to the clinician and ensures a 3D fill throughout the entire canal.
- GuttaCore® adapts better to intricate canal anatomy.[2]
- GuttaCore® follows the natural canal anatomy allowing a clinician to obturate challenging canals.





Note the abundance of voids in this cold lateral SEM cross-section.[1]

Gutta-percha gap



The SEM cross-section of a canal filled with GuttaCore® shows a complete fill.[1]

All gutta-percha

Gaps between cold gutta-percha cones can harbor harmful bacteria.[1]

[1] Quality of obturation achieved by an endodontic core-carrier system with crosslinked gutta-percha carrier in single-rooted canals.; Li GH et al., J Dent. 2014, 42(9): 1124–1134

[2] Effect of varying the depth of heat application on the adaptability of gutta-percha during warm vertical compaction.; Smith RS, et al. JOE. 2000, 26(11):668-72

Obturation

Gutta-Smart™

Optimize your obturation with the complete, low-temperature solution
Fill canals conveniently and reliably with Gutta-Smart™ cordless obturation device and Conform Fit® gutta-percha master cones. Designed to work together, they feature the same low-temperature flow characteristics and radiopacity for a total warm vertical obturation solution.

- Durable, cordless performance
- All-day power
- Cartridges with the same Conform Fit® gutta-percha with low-temperature flow

The battery capacities of the Flow and Pack handpieces allow for them to be used up to five procedures per day on a single charge.

AH Plus®/AH Plus Jet®
Root Canal Sealer

The Gold Standard in Root Canal Sealing

- The most clinically researched and proven endodontic sealer on the global market.
- Clinically proven to have one of the highest levels of radiopacity, biocompatibility, adhesion to dentin via pull out/push testing and other ISO standard testing.
- Pre-filled ready to use syringe.
- Adjustable intraoral mixing tips.
- Ideal mixing ratio due to homogeneous mixing of both pastes.

AH Plus® Bioceramic Sealer

Ready, SET, Go!

- Peace of mind that potential microbial activity will be reduced or eliminated and induces tissue healing.
- Allows gap free bonding with the root canal wall.
- 60% faster set time compared to BC Sealer providing confidence of a stable seal.
- More aesthetic and does not induce discoloration.
- 25% more radiopaque than BC Sealer and allows clinicians to see placement and final treatment.

75% of cases are ideal.
Adaptation is the key to success.
When you can confidently maintain isolation throughout the procedure, choose the **Standard Class II Solution™**.
It's optimized to ensure seamless cavity adaptation – the #1 success factor for ideal cases.

Matrix Placement

70% of clinicians find contact creation to be the most challenging part of a Class II restoration.[1]

An open or improperly contoured interproximal contact can result in a fracture as well as food impaction in the interproximal space. This can result in periodontal inflammation, bone loss and recurrent caries.[2]

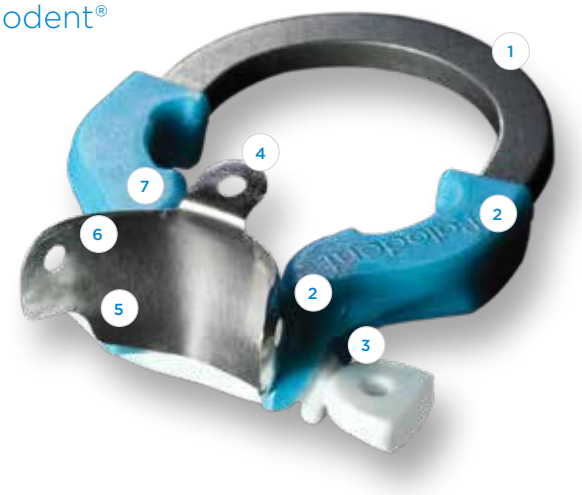
When using resin-based restorative materials, keeping blood and saliva out of the equation is critical for long-term clinical success. If the restorative field is contaminated with moisture, the physical properties and ultimate success of the restoration may be compromised.

[1] DentalTown (2012). Restorative Dentistry. Monthly Poll: What is the most challenging part of a Class II Restoration?
[2] Rosenburg, Jeffrey M (2013). Dentistry Today. Making Contact: A Method for Restoring Adjacent Posterior Direct Resin.

Palodent® V3

Sectional matrix system designed by Triodent®

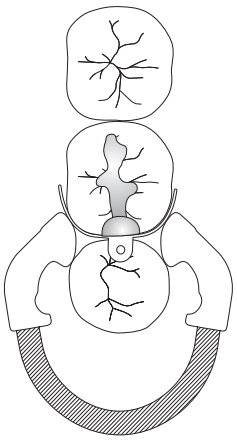
- Predictable tight contacts
- Tight gingival seal
- Less flash, less finishing
- Easy-to-use system



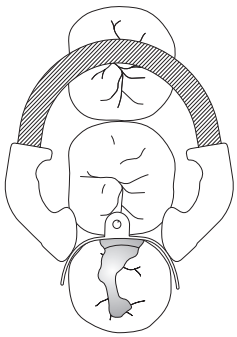
1 Strong NiTi rings for outstanding spring strength and memory
2 Glass-fiber reinforced plastic tines are V-shaped to accommodate the wedge
3 Pin tweezer hole for easy placement & removal of wedge
4 Top tab for easy insertion and side tab for removal of matrix
5 Gingival apron to prevent gaps in gingival-axial corner
6 Greater curvature: matrix wraps around tooth
7 Pronounced marginal ridge for natural-looking anatomy

Use the Palodent® V3 system for:

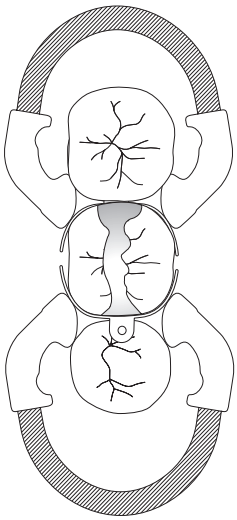
Mesial-occlusal



Distal-occlusal



Mesial-occlusal-distal



Palodent® 360

Circumferential Matrix System

1 6.5 mm Palodent® 360 Matrix Band
2 5.5 mm Palodent® 360 Matrix Band
3 4.5 mm Palodent® 360 Matrix Band

Ideal for larger Class II restorations, when there's no adjacent tooth, or when teeth are misaligned or missing a cusp. Find more about Palodent® 360 on page 41.

Bonding

97% of GDPs state that too dry or too wet dentin sometimes affects the adhesive bond of their composite restorations.[1]

Endo cavities are large, deep cavities with extended dentin surfaces. Due to the repeated rinsing and drying steps during the endodontic treatment, the dentin can show various degrees of moisture within the same cavity.

Most adhesives cannot achieve a uniform coverage of the tooth structure when the dentin is too dry or too wet, resulting in:

- Insufficient sealing of the tooth structure
- Decrease of adhesive performance
- Marginal discoloration
- Recurrent decay

[1] Exevia Dental Shuttle Q1/2015, n=702 GDP's from Italy, France and Germany.

Prime&Bond active®
Universal Adhesive

Active control for reliable restorations

- Versatility for use with all etching methods, all indications
- Reliable performance on over-wet and over-dried dentin
- Virtually no post-operative sensitivity
- Low film thickness for a reduced risk of pooling and misfit of the restoration
- Active spreading helps to avoid dry spots
- Long working time: 30 minutes in a closed CliXdish™
- Unique formulation free of HEMA, TGDMA, and bisphenol

Prime&Bond active®

To ensure a homogeneous application, water and solvent evaporate together, leaving an even, consistent adhesive layer.

iBond® Universal[1]

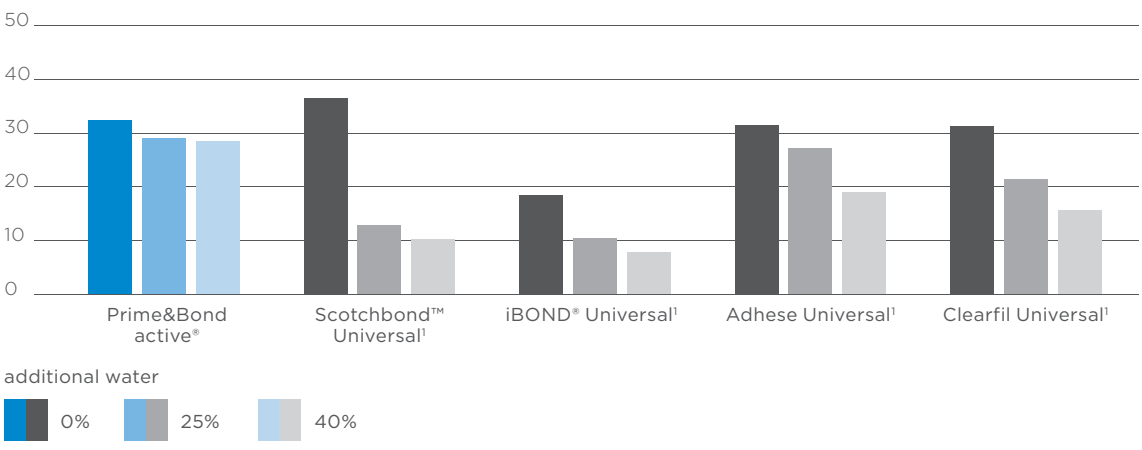
Cannot overcome the surface tension of water. Adhesive and water remain separated.

Scotchbond™ Universal[1]

Cannot overcome the surface tension of water. Adhesive and water remain separated.

SHEAR BOND STRENGTH[2]

[MPa]



[1] Not a registered trademark of Dentsply Sirona, Inc.
[2] Shear Bond Strength of Universal Adhesives on dentin after water contamination. Internal data on file. For more information, contact Consumables-Data-Requests@dentsplysirona.com.

Bulk Fill

82% of dentists report using a flowable as a liner in Class II restorations to increase marginal adaptation.[1]

If the restorative material is unable to take on the shape of the cavity preparation, unfilled areas or voids can occur which may result in recurrent caries.

But even if adapted correctly upon placement, gaps can form during curing through debonding caused by high shrinkage stress.

This is particularly important in deep, post-endodontic cavities with a large amount of bonded surfaces (high C-Factor).

"The micro tensile bond strength decreased significantly when 4 mm cavities were filled in bulk, except for the bulk fill composite SDR®[2], which could maintain its bond strength."[3]

1 Council on Scientific Affairs of the American Dental Association. Spring 2009;4(2).
2 SDR® technology is included in several products such as SDR®, Surefil SDR® flow, Surefil SDR® flow+ and also SDR® flow+. It is self-levelling for excellent cavity adaptation, it enables dentists to bulk-fill up to 4mm and exhibits extremely low polymerization stress.
3 Van Ende A, Van Meerbeek B et al: Bulk-filling of high C-factor cavities: Effect on adhesion to cavity bottom dentine. University of Leuven, Belgium. Dental Materials 29 (2013) 269-277.

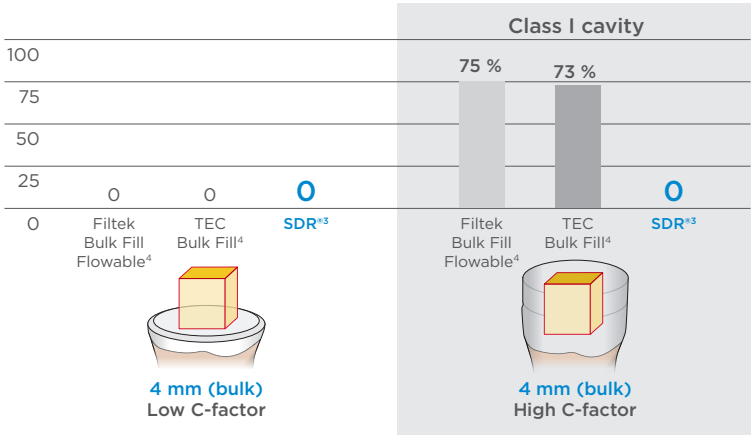
SDR® flow+
Bulk Fill Flowable

A perfect endo needs a perfect resto!
- The unmatched bulk fill material with several years of proven clinical success[1,2]
- Up to 4 mm increments: Up to 40% placement time savings
- Self-leveling consistency: Excellent cavity adaptation, even in deep cavities

Reliable adhesion to dentin in high C-factor endo cavities
- Zero pre-test failures in micro tensile bond strength testing[2]
- Reliable bond

PRE-TEST FAILURES [%]

during micro tensile bond strength testing to cavity floor[2]



Improved syringe

Laser printing resistant against liquids

New grip plate for 360° handling

Bulk fill deep cavities with excellent adaptation

Dr. Holzmeier

After obturation with gutta percha.

Excellent self-leveling of SDR®.[3]

Final situation with Ceram·X® mono⁺ as capping material.

Dr. F. Paqué

Micro-CT after root canal obturation with AH Plus® and gutta percha...

...and after coronal sealing with SDR®.[3]

X-ray of final restoration.

[1] Bulk-filled posterior resin restorations based on stress-decreasing resin technology: a randomized, controlled 6-year evaluation. Van Dijken JWV, Pallesen U. Eur J Oral Sci. 2017 Aug;125(4):303-309. doi: 10.1111/eos.12351. Epub 2017 May 19.

[2] Posterior bulk-filled resin composite restorations: A 5-year randomized controlled clinical study. van Dijken JW, Pallesen U. J Dent. 2016 Aug;51:29-35. doi: 10.1016/j.jdent.2016.05.008. Epub 2016 May 26.

[3] SDR® technology is included in several products such as SDR®, Surefil SDR® flow, Surefil SDR® flow+ and also SDR® flow+. It is self-levelling for excellent cavity adaptation, it enables dentists to bulk-fill up to 4mm and exhibits extremely low polymerization stress.

[4] Not a registered trademark of Dentsply Sirona, Inc.

Occlusal Layering

74% of dentists complain about handling properties of composites such as adaptability and stickiness.[1]

57% of dentists frequently see composite staining at recall appointments.[2]

Dentists spend up to 28% of Class II chair time on shade selection and finishing and polishing.[3]

[1] Dentsply Sirona Restorative, Europe composite user survey 2015, n=297.
[2] Class II Composite Insights, Greater New York Dental Show Survey, 2016.
[3] Internal data on file. For more information, contact Consumables-Data-Requests@dentsplysirona.com.

Ceram.x Spectra™ ST
Universal Composite Restorative

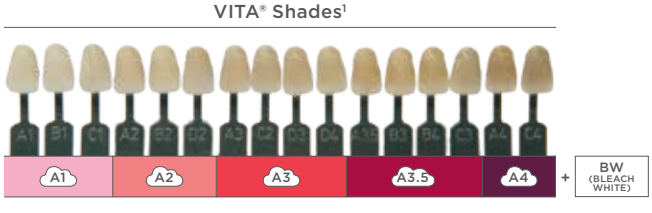
Made for what matters to you:
Ceram.x Spectra™ ST Composite with SphereTEC® filler technology

Efficiency matters
Ceram.x Spectra™ ST composite offers optimized handling characteristics in both a high and low viscosity:
- Does not stick to hand instruments
- Adapts easily to cavity surfaces
- Easy to sculpt and shape
- Excellent slump resistance

Longevity matters
Esthetic results made even more durable. SphereTEC® filler also takes that performance to the next level.
- Excellent stain resistance
- 60% improved wear resistance

After 24-Hour Staining Test[2]

Esthetics matter
Exceptional esthetics, made even easier to create, with Ceram.x Spectra™ ST Composite's simplified shade matching.
- Five universal CLOUD shades cover the full VITA®[1] range
- Polish to a high gloss, faster
- Save money and shelf space by reducing inventory



Ceram.x Spectra™ ST Universal CLOUD Shades

After preparation

After finishing

After 20 sec. polishing

[1] VITA® is not a registered trademark of Dentsply Sirona.
[2] Internal data on file. For more information, contact Consumables-Data-Requests@dentsplysirona.com.

Light Curing

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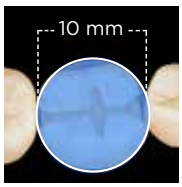
50% of all dental income relies on the successful use of a curing light.[3]

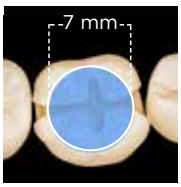
[1] Boksman, L., Santos GC., (2012). Principles of Light Curing. Inside Dentistry, Volume 8, Issue 3.
[2] Durable Bonds at Adhesive/Dentin Interface. Braz Dent Sci. 2012;15(1): 4-18.
[3] American Dental Association. (2007). 2005-06 Survey of Dental Services Rendered. 1–181.

SmartLite® Pro
Modular LED Curing Light

Reliable clinical outcomes
Large 10 mm active curing diameter to cover bigger restorations combined with an excellent beam collimation for reliable curing even over larger distances.



SmartLite® Pro



Competitor


SmartLite® Pro: Collimated beam for reliable curing over larger distances.

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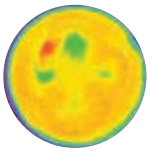
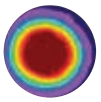
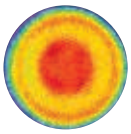
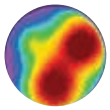
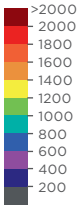
Optimized 4 LED design provides a uniform light distribution over the whole active curing area. Irradiance: ~1.250 mW/cm²

Beam profiles of 4 lights showing the distribution of light emitted across the light tips[1]

SmartLite® Pro	Competitor A	Competitor B	Competitor C	Irradiance (mW/cm²)
				 >2000 2000 1800 1600 1400 1200 1000 800 600 400 200
Active Tip Diameter				
10 mm	6.6 mm	9.0 mm	7.3 mm	

All images taken at 0 mm distance from the tip under identical conditions showing the unfiltered irradiance distribution of all wavelengths of blue and violet light (350-550 nm).

Metal housing
Medical-grade stainless steel and anodized aluminum provide robust durability, year after year.

Versatility
The SmartLite® Pro features a modular design with interchangeable tips for a variety of clinical indications. These quick connect, 360-degree rotational tips are easy to change.

Transillumination
The additional Transillumination Tip is a diagnostic aid for the visualization of interproximal caries, evaluation of cracked teeth and the illumination of endodontic access. It's sophisticated design includes a 1 mm focused light output with 2 different settings (anterior and posterior).

[1] R. Price (2019). Unpublished commissioned study. Internal data on file.
For more information, contact Consumables-Data-Requests@dentsplysirona.com.

Finishing

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In addition, the time and effort needed for proper reprocessing and sterilization of multi-use finishing instruments is often underestimated.

[1] Exevia: Dental Shuttle Q4, 2016, Germany.

Enhance®
Finishing System

Coarse when you need it, fine when you want it
The Enhance® Finishing System accomplishes the entire process of excess removal, contouring, and finishing simply by varying the pressure. In just one step the Enhance® Finishing System delivers a smooth, contoured surface with a natural looking finish.

Apply more pressure for excess removal and initial contouring; back it off for a naturally smooth surface. With no need to change instruments.

Enhance® mini
Improved access and versatility

Excess Removal and Contouring

Finishing


Class II DO restoration with ceram.x® universal after finishing with Enhance®

25% of cases are challenging.
Procedure time is the key to success.
When saliva or blood contamination is a risk, choose the **Streamlined Class II Solution™**.
It allows you to fill in one quick step
to minimize the window of contamination risk –
the #1 success factor forchallenging cases.

Matrix Placement

97% of clinicians say that achieving proper isolation of a Class II cavity is difficult in at least 1 out of 10 cases.[1]

[1] Dental Learning Systems, Direct Restorations Survey, May 2016, N=143.

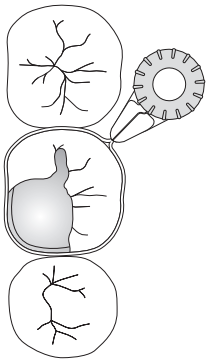
Palodent® 360
Circumferential Matrix System

Provide natural contours and optimal contacts with a simple twist of the fingers – no awkward retainers or applicators required.

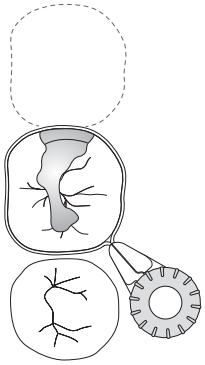
Choose the Palodent® 360 system for Class II cases where a sectional matrix can't be used and for single-unit crown core build-up procedures.

Use the Palodent® 360 system for:

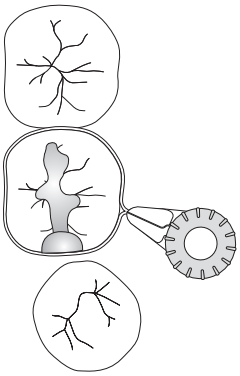
Missing cusp



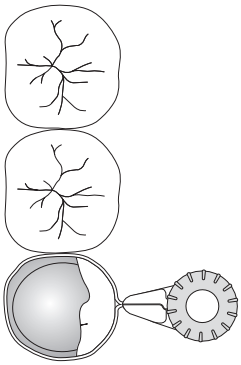
Missing adjacent tooth



Misaligned tooth



Tooth isolation for core build-up



TIP To seat in tight interproximal spaces, pre-wedge using a Palodent® V3 retaining ring or a wooden wedge to temporarily create the required space.

TIP To properly fit the tooth, matrix should be slightly larger than the occlusal circumference. Twist the thumb wheel counterclockwise to unroll the coil slightly and enlarge the loop, or clockwise to take up the coil and reduce the loop, if necessary.

Bulk Fill

Moisture contamination from saliva or blood can compromise restoration success.[1]

Shorter procedure time is key to long-term success.
With the Abbreviated Class II Solution™ workflow, there's no need for etching or bonding, and you can fill the cavity in one step with unlimited depth of cure.

So you can minimize the window of opportunity for when contamination can occur and achieve lasting results with Surefil one™ self-adhesive restorative.

[1] Gilbert GH, Litaker MS, Pihlstrom DJ, Amundson CW, Gordan VV. Rubber dam use during routine operative dentistry procedures: findings from The Dental PBRN. Oper Dent 2010;35(5):491-9.

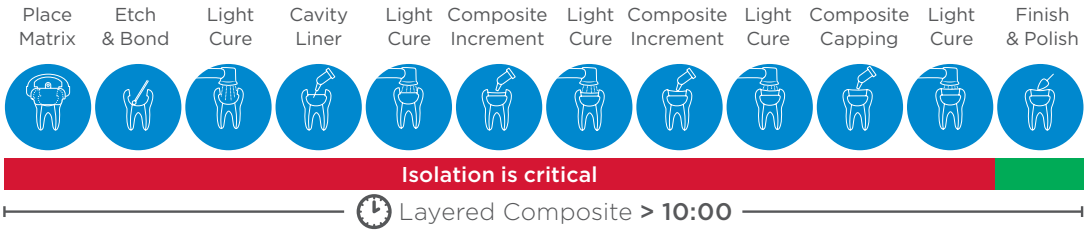
Surefil one™

Self-Adhesive Composite Hybrid

Ideal for compromised cases
When using resin-based restorative products, isolation is critical for success. With a more efficient procedure, Surefil one™ restorative minimizes the time when blood or saliva contamination could compromise the restoration.

The speed of Surefil one™ restorative helps provide more efficient procedures for you and your patients.

- Self-adhesive: no etching, bonding or cavity conditioning
- As durable as composite
- Faster than composite



Fewer steps mean less room for error. Self-adhesion means there's never a concern about inadequate etching, adhesive coverage or solvent evaporation. And with unlimited depth of cure, there's no risk of insufficient curing.

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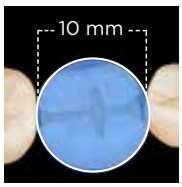
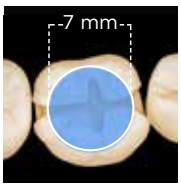


SmartLite® Pro



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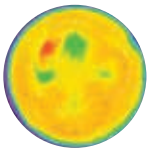	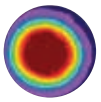	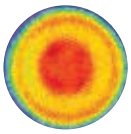	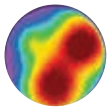	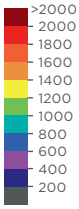 >2000 2000 1800 1600 1400 1200 1000 800 600 400 200
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Enhance® mini
Improved access and versatility

Excess Removal and Contouring

Finishing


Class II DO restoration with ceram.x® universal after finishing with Enhance®

The restorative cavity configuration influences loss of tooth stiffness much more than the endodontic procedure. MOD cavity preparation resulted in an average of 63% loss in relative cuspal stiffness.

Reeh, Ernest S., Harold H. Messer, and William H. Douglas. „Reduction in tooth stiffness as a result of endodontic and restorative procedures." Journal of endodontics 15.11 (1989): 512-516.

Core&Post Solution

Glass fiber posts keep both catastrophic and restorable fracture rates low.[1]

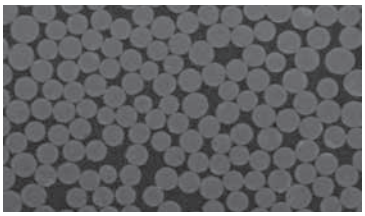
In situations where not enough hard tissue remains, a post is placed in order to provide sufficient retention for the core build-up and coronal restoration.

In comparison to dentin, metal and ceramic posts show a very high e-modulus, resulting in stress peaks in the root canal dentin which can be a reason for root canal fractures (Rosentritt et al. 2000, Sirimai et al. 1999). These fractures lead to the extraction of the tooth.

[1] Figueiredo et al: Do metal-post retained restorations result in more root fractures than fiber post retained restorations? A systematic review and meta-analysis. JOE 2015, Vol 41, 3: 309-316.

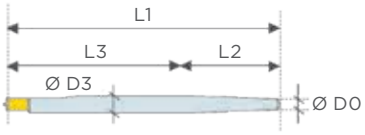
X-Post®
Endodontic Fibre Post

Minimize risk of tooth fracture
Modulus of elasticity of X-Post®, which is close to that of dentin, prevents fissures or fractures.
Parallel oriented fibers prevent fissures or fractures.

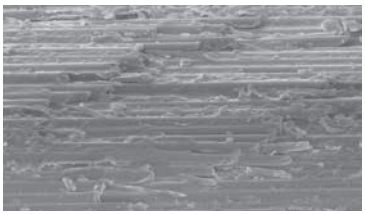


Lower removal of healthy dentin
X-Post® has a tapered shape similar to anatomical form of most root canals. This helps to reduce the removal of healthy dentin.

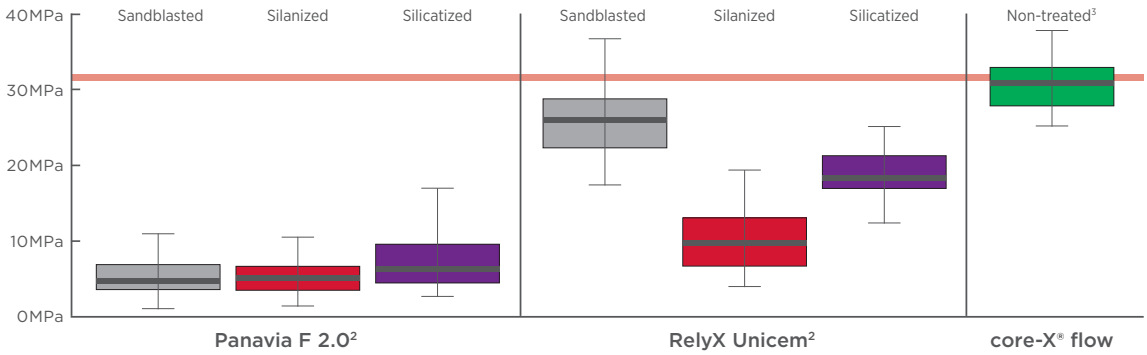
	[mm]	Ø D0	Ø D3	L1	L2	L3
№ 1		0.8	1.35	20.0	6.00	13.77
№ 2		0.8	1.47	20.0	7.25	12.52
№ 3		1.0	1.67	20.0	7.20	12.51
№ 4		1.0	1.83	20.0	9.00	10.71



High bond strength for long-lasting restoration
Microporous surface of X-Post® provides maximum surface for better adhesion of cement.



HIGHEST BOND STRENGTH FOR NON-TREATED X-POST®[1]



[1] Wagner T. et al., Influence of different post surface treatments on bond strengths of glass fiber posts in root canals (DGZ 2008, Abstract 0049).
[2] Not a registered trademark of Dentsply Sirona, Inc.
[3] Coated with Prime&Bond® XP and Self Cure Activator.

The most common type of failure with fiber-reinforced composite posts is debonding.[1]

Statistics highlighted that, regardless of the type of post, the apical portion was reached by a significantly lower amount of light. The light intensity at the deepest level of the root canal may be insufficient to induce proper polymerization.[2] Insufficient curing results in significant decrease of bond strength.

The geometry of the post space and the limited visual control complicate rinsing of the etch gel. Leftover etchant at the bottom of the post space may negatively impact the bonding performance and therefore increase the risk of debonding.

In conclusion, a bonding system should work in self-etch mode and also without light curing.

[1] Cagidiaco, MC, Goracci, C, Garcia-Godoy, F, Ferrari, M. Clinical studies of fiber posts: a literature review. Int J Prosthodont. 2008 Jul-Aug;21(4):328-36.

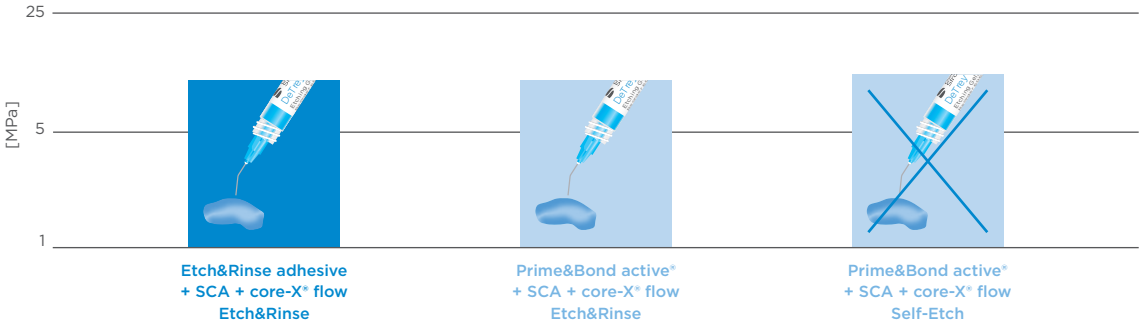
[2] C. Goracci, G. Corciolani, A. Vichi and M. Ferrari: Light-transmitting Ability of Marketed Fiber Posts; Department of Dental Materials and Fixed Prosthodontics, University in Siena. J Dent Res 87(12):1122-1126, 2008.

Prime&Bond active® + Self Cure Activator

Universal Adhesive

Dark-Cure option for glass fiber posts
In combination with Self Cure Activator (SCA) and core-X® flow, separate light curing of the adhesive layer is not necessary. Technique Tip: After inserting the post, apply light to stabilize it before starting to build up the core.

PUSH OUT STRENGTH[1]



The combination of Prime&Bond active®, Self Cure Activator and core-X® flow provided equal or better bond strength compared to established systems. The X-Post® was coated with the respective adhesive system. A separate pre-treatment, e.g. with silane, is not necessary.

Reliable seal of adhesively cemented X-Post®[2]

- Adhesive cementation further increases the seal of endodontically treated teeth.
- Prime&Bond active® in self-etch mode showed equal performance compared to the etch&rinse.

[1] Grandini S (2017), University of Siena, Push-Out Strength of adhesively cemented fiber posts.
[2] Grégoire G (2018), University of Toulouse, Measurement of fluid movement through dentin adhesives in endodontically treated teeth.

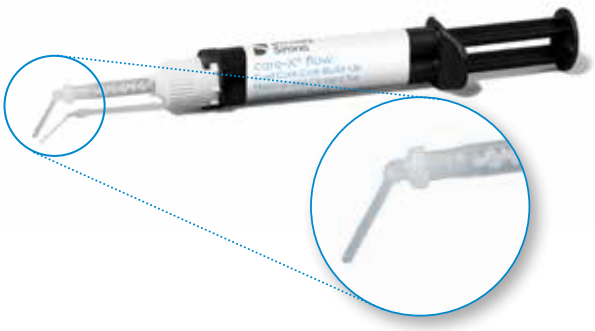
core-X® flow

Dual Cure Core Build-Up Material and Cement for Endodontic Posts

”Regardless of being self-cured, light cured or light cured with delay, core-X® flow showed no significant differences in curing performance compared to other materials in the test“[1]

Time-saving and cost effective

Two indications in one product:
- Core build-up and post cementation (dual cure mode)
- Ideal consistency for stable build-up and adjustment to tooth surface
- “Cuts like dentin“



Easy and safe application

- Automix syringe: Consistent mix of material and predictable quality
- Mixing tips with pre-mounted intraoral tips designed for direct application into the root canal
- Radiopaque: X-ray detection for monitoring (2 mm/mm Al)

Provided by Dr. Hermeler

[1] Tauböck TT et al., JADA 2011; 142(8): 950-956.

Core&Post Solution Kit
Adhesive Core Build-Up Kit

Developed to work together – making a difference for every step in the core & post procedure

1 Largo® Peeso Reamer
Post Space Bur

- Matching instrument size for every X-Post®
- Color coding for easy selection

2 X-Post®
Endodontic Fiber Post

- Dentin like elasticity
- Excellent fatigue resistance
- Maximum surface for better adhesion to cement

3 Prime&Bond active®
Universal Adhesive
+ Self Cure Activator

- Dark cure cementation option
- Self-etch cementation option
- Active moisture control

4 core-X® flow
Dual Cure Core Build-Up Material and Cement for Endodontic Posts

- Dual cure mode
- Two indications in one product
- High bond strength in combination with X-Post®

Single-Unit Crown Workflow Chairside Solution

Highly Esthetic Restorations in a Single Visit

1. Digital Scan

CEREC® Primescan™ – the best intraoral scanner for highest demands.

- Latest, future-oriented technology
- Easy handling even for frequent full arch scans
- Photorealistic color visualization
- Extremely fast
- Very precise und accurate
- Comprehensive hygiene concept
- Intuitive handling

2. Design

The Acquisition Center & CEREC® Software.

- State-of-the-art technology for CEREC® Primescan™ and CEREC® Omnicam
- Modern design of hardware and software
- Medical device approved for use next to patients
- Ergonomic working thanks to swiveling screen
- Easy to clean, smooth surfaces
- Mobile workplace
- Extra-long battery charge of over 60 minutes

3. Manufacture

CEREC® Primemill.

- 7" Touch Interface
- Super fast mode for Zirconia crowns
- Block scanner and RFID reader for an easier and faster workflow
- Complete range for a huge variety of indications up to 70 mm block size
- Smoother Zirconia restoration surfaces

4. Finish

CEREC® SpeedFire.

- Fast sintering of full-contour zirconium oxide
- Speed + Pre-Dry: Wet restorations can be processed in a single procedure
- Maximum sinter temperature: 1600 °C
- SpeedGlaze process: Fastest glazing process in < 9 minutes
- Maximum heat-up speed 300 °C/min: No preheating or holding temperatures necessary
- Shorter waiting times due to active cooling of furnace, chamber and restoration
- Interfaces: 2x USB 2.0, 1x LAN (RJ45), WLAN (optional via WLAN-USB dongle)

Single-Unit Crown Workflow Chairside Solution

Dentists feel the firing process is consistent, predictable and easy.

However, they wish it was faster.[1]

[1] Single-Unit Crown Chairside Milling Solution, DIGinsights Qualitative Report, USA, October 2021.

CEREC® SpeedFire

reddot award 2016
winner

CEREC® SpeedFire is the smallest and fastest sintering furnace available, with induction technology capable of sintering a glass ceramic crown in as little as 4.5 minutes or a full-contour zirconium oxide crown in 13 to 15 minutes.*
The CEREC® SpeedFire comes with a modern design in black and white and pre-heating function.

Automatic processing
The CEREC® Software sends firing orders directly to the furnace, including all necessary information.

CEREC® SpeedGlaze
If desired, a glaze can be applied with CEREC® SpeedGlaze, which can be fired in just a few minutes in the CEREC® SpeedFire. The restoration is ready to be placed as soon as it is cool.

The only chairside furnace you need
CEREC® SpeedFire can sinter, glaze, and crystallize all of your materials. All programs are tested and validated by Dentsply Sirona, or by our partners for third-party materials.

dentsplysirona.com/SpeedFire – See the CEREC® SpeedFire in action.

* Depending on material type and restoration thickness: 4.5 minutes for CEREC® Tessera, 13-15 minutes for CEREC MTL® Zirconia.

Single-Unit Crown Workflow Chairside Solution

79% of dentists said esthetics is a primary reason for using glass ceramic.[1]

Selecting the right block for the right clinical case

Single-visit dentistry is not just about the scanner, mill, and furnace – it also encompasses the restorative materials, including the block and the cement. While there is a wide offering of blocks, selecting a block that can impact the procedural workflow relative to the overall speed and simplicity of the material should not be overlooked.

Glass ceramic materials are being used for most restorations regardless of the location in the mouth. Having restorative materials that provide the needed strength and esthetics to handle all these situations is highly desirable.

[1] Internal data on file. For more information, contact Consumables-Data-Requests@dentsplysirona.com.

CEREC® Tessera

Advanced Lithium Disilicate

CEREC® Tessera CAD/CAM blocks provide outstanding esthetics for a truly tooth-like restoration. Up to 32% higher biaxial strength for restoration longevity. And up to 44% faster total processing time for greater patient satisfaction and a more profitable procedure.
Speed, strength, and esthetics. It's the trifecta for single-visit success.

Indications

- Crowns
- Inlays
- Onlays
- Veneers

The strong CEREC® block

- CEREC® Tessera blocks achieve exceptional three-way performance through a unique chemistry that incorporates two complementary crystal structures – Lithium Disilicate and Virgilite within a glassy zirconia matrix.
- CEREC® Tessera is the strongest glass ceramic block currently offered in the market with biaxial strength measured at more than 700 MPa[1].

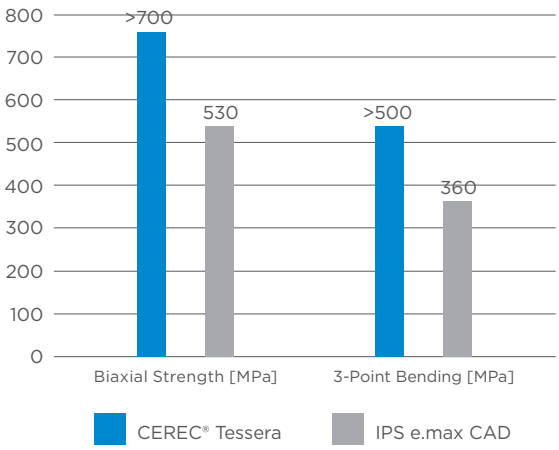
The esthetic CEREC® block

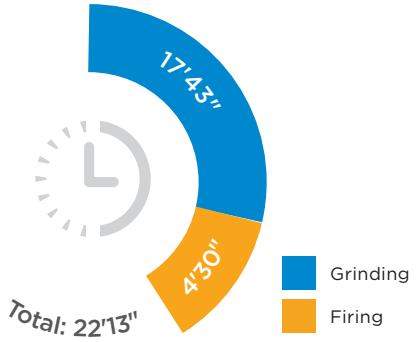
- CEREC® Tessera blocks simplify shade selection with true shade blocks that match the final restoration.
- The dual crystal structure of CEREC® Tessera is designed to interact with the visible light spectrum for ideal translucence, fluorescence, and opalescence.

The fast CEREC® block

- CEREC® Tessera is redefining the possibilities of single-visit Dentistry.
- An already partially crystallized block enables for faster firing – requiring only 4.5 minutes in a CEREC® SpeedFire furnace, even with stains[1].

Stength Data of CEREC® Tessera vs. IPS e.max® CAD





Single-Unit Crown Workflow Chairside Solution

82% of dentists say strength is a primary reason for using zirconia.[1]

When choosing a restorative material, durability, strength, and esthetics as well as ease of processing are among the most important requirements. Until now, certain criteria had to be prioritized when selecting materials – the best esthetics could often only be achieved by compromising on strength. When it came to fabricating high-strength restorations, 82 percent of dentists opted to use a zirconium oxide, according to a survey[1]. This often meant making compromises in terms of esthetics.

With new high-strength, multi transitional layer zirconia blocks for chairside use these tradeoffs come to an end. Due to their translucency and seamless color gradient, multi transitional layer zirconia blocks are also highly suitable for restorations with esthetic demands.

[1] Internal data on file. For more information, contact Consumables-Data-Requests@dentsplysirona.com.

CEREC MTL® Zirconia

Multi Transitional Layer Zirconia

Designed and made by VITA

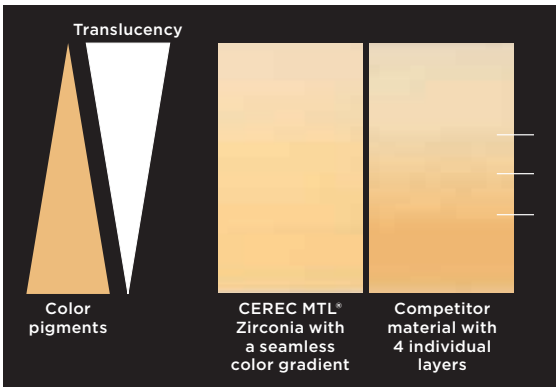
To achieve outstanding results in dental restorations, strength and beauty must go hand in hand. CEREC MTL® Zirconia is the block that provides you with strong, precise restorations that are highly esthetic and natural looking.

Indications

- Crowns
- 3-unit bridges
- Onlays
- Inlays
- Veneers

Natural gradient for great esthetics

- Via its high translucency and high color matching characteristics, CEREC MTL® Zirconia meets all esthetic needs.
- The excellent match with the most commonly used VITA classical shades allows for convenient color selection.



Strength for more confidence

- The high strength of >850 MPa[1] benefits both, dentist and patient. Restorative treatment is even possible in areas with limited space.
- The more conservative preparation design provides greater flexibility on the restoration design.

Up to 40% lower

wall thickness and thus less natural tooth removal compared to competition for crowns allows for a more conservative preparation design and also provides greater flexibility on the restoration.[2]

Fast chairside zirconia workflow

- With CEREC® Primemill excellent CEREC MTL® Zirconia crowns can be milled in around 5 minutes in the Super Fast milling mode.[3]
- With CEREC® SpeedFire, a crown can be sintered in 18 min. The optional glazing fire requires just 9 min.

[1] 3-point bending strength. Internal data on file. For more information, contact Consumables-Data-Requests@dentsplysirona.com.
[2] Minimum wall thickness for a posterior Katana Zirconia Block (Kuraray Nortiake) crown is 1.0 mm. Minimum wall thickness for CEREC MTL® Zirconia crown is 0.6 mm.
[3] For Super Fast Milling it is recommended to increase the minimum wall thickness to 0.7 mm.

Final Crown Cementation Solution

Cementation should be simple and contribute to the overall results without being a liability risk for microleakage.

69% of general practitioners see a need for improved protection of marginal integrity and reduced risk of secondary caries.[1]

21% of crown failures are due to secondary caries due, in part, to excess cement.[2]

Most cements give you extremely limited time for cleanup, increasing the likelihood of excess cement being left on tooth, especially interproximally.[3]

This presents a serious risk, as residual cement can increase the chance of crown failure.

1 Internal data on file. For more information, contact Consumables-Data-Requests@dentsplysirona.com.
2 Anami, L.C., Pereira, C.A., Guerra, E., Souza, R., Jorge, A., & Bottino, M. (2012). Morphology and bacterial colonisation of tooth/ceramic restoration interface after different cement excess removal techniques. Journal of Dentistry,40, 742-749.
3 Mitchell CA, Pintado MR, Geary L, Douglas WH Retention of adhesive cement on the tooth surface after crown cementation. J Prosthet Dent 1999; 81:668-677.

Calibra® Cements
Calibra® Ceram and Calibra® Universal

Easy Cleanup and Simple Selection for Successful Restorations
A 45-second gel phase after light exposure (<5 sec) gives you the time you need for thorough, stress-free cleanup of excess cement.

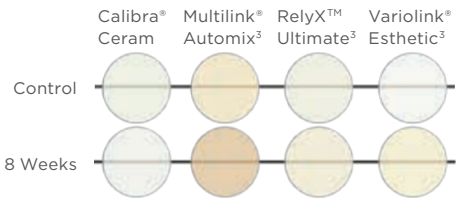
Glass Ceramics
Adhesive Bonding[1]

OR self-adhesive Cementation[2]

Zirconia oxide
Self-adhesive Cementation

Calibra® Ceram
Adhesive Resin Cement

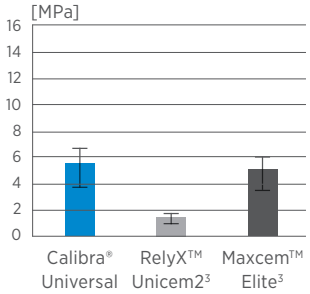
The high strength adhesive cement with patented Shade Stable® technology and both immediate and long-term bonding stands for esthetic success in light-transmissible restorations, such as those made of all-ceramics and CAD/CAM materials (e.g., CEREC® Tessera).



Calibra® Universal
Self-Adhesive Resin Cement

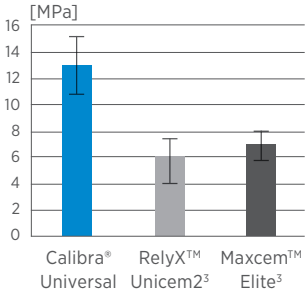
The two-component, dual-cure, high strength self-adhesive cement that combines esthetic shading with a selfetching adhesive, making it ideal for both glass or metal based restoration.

6 Minute shear bond strength to dentin



Test: Shear Bond Strength to dentin after self curing for 6 minutes at 37 °C. Source: Dentsply Sirona.

24 hour shear bond strength to dentin



Test: Shear Bond Strength to dentin after self curing for 24 hours at 37 °C. Source: Dentsply Sirona.

[1] Recommended cementation pathway with occlusal height of <1.5 mm.
[2] Recommended cementation pathway with occlusal height of 1.5 mm or greater.
[3] Not a registered trademark of Dentsply Sirona, Inc.

Final Impression Solution

47% of labs list impression quality as their top challenge with clinicians.[1]

When taking an impression, factors such as the presence of moisture, patient anatomy, location of the tooth, visibility, and more can turn the simple goal of capturing detail into a stressful experience. The key challenges are:

Voids and Bubbles
- Improper syringe technique
- Air incorporated into syringe while loading material into syringe or tray
- Blood/saliva contamination around preparation

Tears
- Poor tear strength of impression material
- Inadequate space created during retraction

Pulls and Drags
- Timing of wash and tray materials not synchronized
- Tray seated too late
- Tray movement during material setting

Innovative Cartridge Delivery System
- Can eliminate up to 64% of the waste you are used to[2]
- Bleed once for the life of the cartridge[3]
- Up to 10 more single-unit crown applications per cartridge[2]

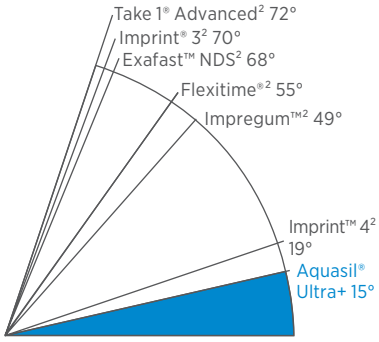
[1] Some Things Never Change: Inadequate Impressions Still Labs' Biggest Client Headache. LMT State of the Industry Survey, November 2015.
[2] When comparing Dentsply Sirona low viscosity impression material in the new red mixing tip versus the old teal mixing tip.
[3] Only with the 50mL System.

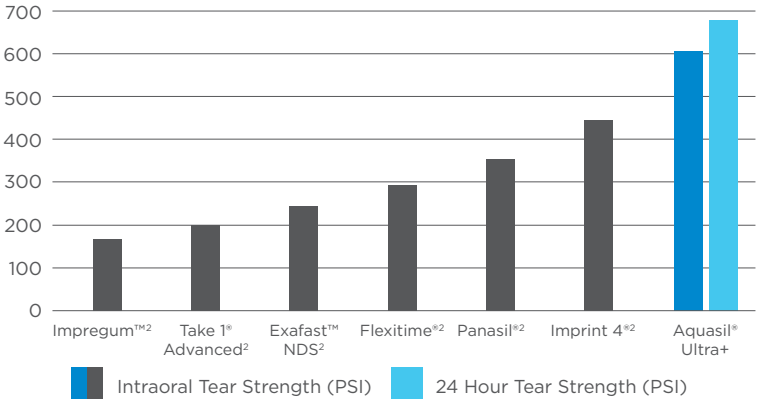
Aquasil® Ultra+
Smart Wetting® Impression Material

Leading Intraoral Hydrophilicity[1]
Designed to avoid trapping fluid from the moment it is syringed in a moist, humid environment, helping alleviate voids and bubbles at or near the margin.

Highest Intraoral Tear Strength[1]
Patented technology delivers polyfunctional bonds, for the highest intraoral tear strength on the market. This ensures margins stay intact and material is not left in the sulcus.

Highest Tear Strength at 24 Hours[1]
Labs need your impression to remain intact, also. Designed to be strong even after it leaves your office, ensuring better model and final restoration accuracy.





Water droplet test on material that has not set


Flexitime² 55°


Impregum² 49°


Aquasil® Ultra+ 15°

High tear strength, hydrophilicity, and flowability
The combination of these three properties is necessary for a highquality impression. A study conducted by the University of Tübingen (Germany) for Dentsply Sirona proves this for Aquasil® Ultra+.[3]

Precise transfer of implant position
Due to its uncompromising accuracy, Aquasil® Ultra+ is suitable for impressions of both implants and natural teeth. For impression taking of both implants and natural teeth, we recommend the double-mix technique with Aquasil® Ultra+ XLV wash material and Aquasil® Ultra+ Heavy tray material.

[1] Internal data on file. For more information, contact Consumables-Data-Requests@dentsplysirona.com.
[2] Not a registered trademark of Dentsply Sirona, Inc.
[3] Huettig F, Klink A, Kohler A, Mutschler M, Rupp F. Flowability, Tear Strength, and Hydrophilicity of Current Elastomers for Dental Impressions. Materials (Basel, Switzerland). 2021 Jun;14(11). DOI: 10.3390/ma14112994.

Provisional Solution

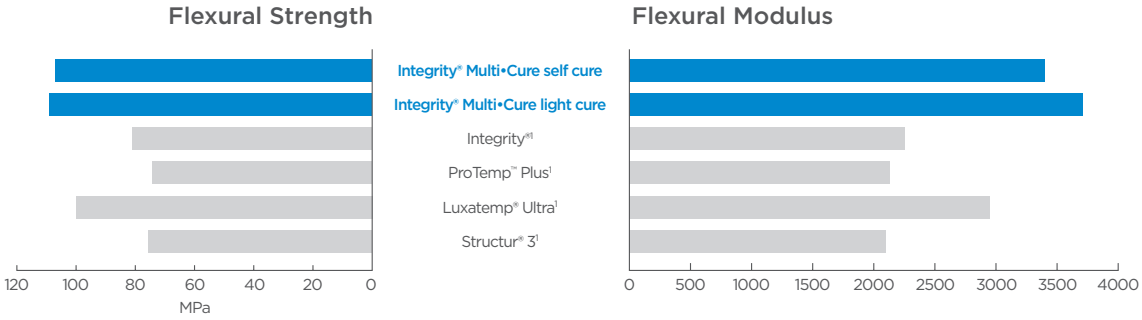
Repairs and Remakes can cost an office as much as $900 or more a month in lost production.[1]

Create a better provisional
Provisionals are an important element of crown and bridge restorations. They bridge the time between preparation of the tooth and the final indirect restoration cementation.

The right provisional material can help the clinician with
- Avoiding patient interim visits for repairs, adjustments or remakes
- Creating ideal conditions for healthy tissue in the definitive cementation visit
- Restoring full masticatory function and high esthetics for overall patient statisfaction

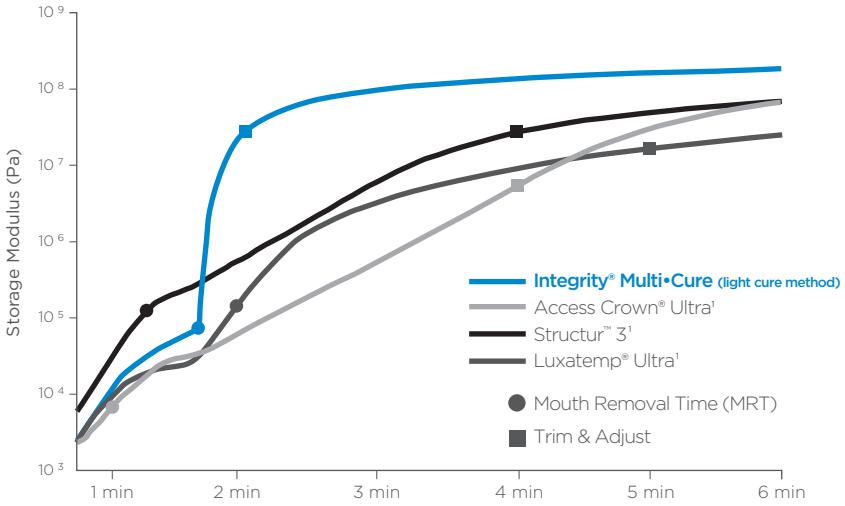
[1] Internal data on file. For more information, contact Consumables-Data-Requests@dentsplysirona.com. 2013 Levin Group Annual Practice Research Report. Dental Economics, November 2013. Dollar value applies to the USA & might vary in other countries.

Integrity® Multi•Cure
Temporary Crown & Bridge Material



Integrity® Multi•Cure material provides high strength for durable provisionals.

Modulus Development



Note: Protemp™ Plus 2 (multiple lots) failed cure profile testing.

Light curing minimizes risk of trimming and adjusting prematurely, and saves up to 30% procedure time.

Even More Beneficial Features

- Bonds to itself and light cure composites for easy repairs
- Great consistency for easy handling and cleanup
- Minimal shrinkage to ensure final fit
- Unique dual cure formula
- Highly polishable to a natural luster for maximum gingival health
- Available in various shades for excellent esthetics

[1] Not a registered trademark of Dentsply Sirona, Inc.

Provisional Solution

One single recementation visit
can cost $115 in office revenue.[1]

The right provisional cement sets the tone
A temporary cement needs to deliver a strong bond while also allowing for a smooth removal and simple clean up to leave an ideal environment for definitive cementation.

In addition, there are more aspects to the temporary cementation:
- Overdesiccating the tooth prep before cementing is the main reason for post-op sensitivities.
- An easy clean-up without crumbling is important to prepare a healthy field for the final restoration.
- Provisional cements containing Eugenol can interfere with the polymerization of resin materials. That said in most cases either the provisional, the tooth prep or the adhesive final cementation can be affected negatively.

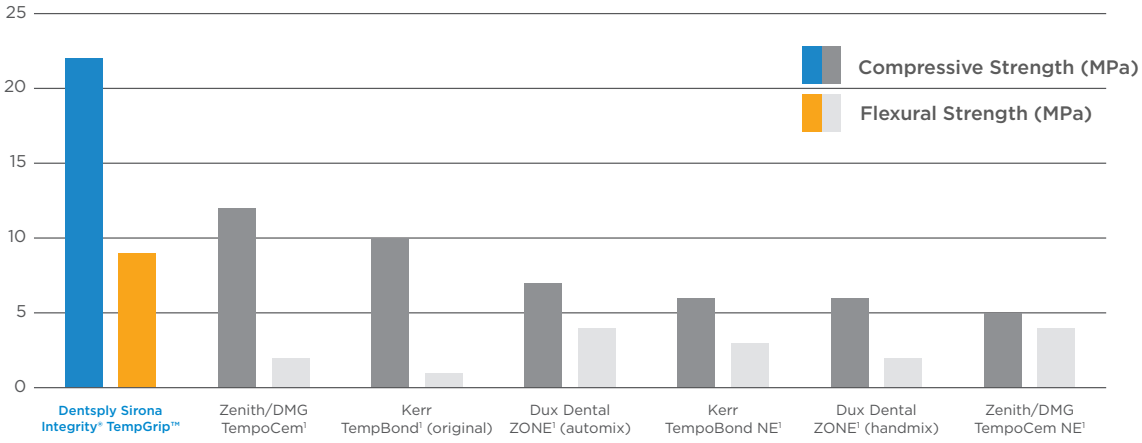
[1] Internal data on file. For more information, contact Consumables-Data-Requests@dentsplysirona.com. US-Dollar value applies to the USA & might vary in other countries.

Integrity® TempGrip®
Temporary Crown & Bridge Cement

Film Thickness
Low film thickness and no-drip flow for superior handling and luting.

Brand	Integrity® TempGrip™	ZONE[1] (handmix)	ZONE[1] (automix)	TempoCem NE[1]	TempBond Clear[1]	TempBond[1]
Manufacturer	Dentsply Sirona	Dux Dental	Dux Dental	Zenith/DMG	Kerr	Kerr
Microns	11	37	29	24	17	13

Compressive and Flexural Strength
High compressive and flexural strength provides reliable strength and security.



With its excellent adhesion to provisional material the cement stays in the crown not on the tooth upon removal for easy clean-up.

Even More Beneficial Features
- Less desiccation minimizes the threat of post-op sensitivity
- Material comes of smoothly without crumbling for quick cleanup
- Automix syringes assure reliable mixing
- Non-Eugenol formula establishes an ideal environment for resin-based definitive cementation

[1] Not a registered trademark of Dentsply Sirona, Inc.

For more information visit www.dentsplysirona.com.

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K79200243-06

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Dentsply Sirona