

COMPETITIVE COMPARISON

TheraCem[®]

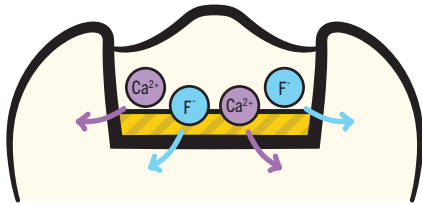
Self-Adhesive Resin Cement

VS

Self-Adhesive Resin Cements

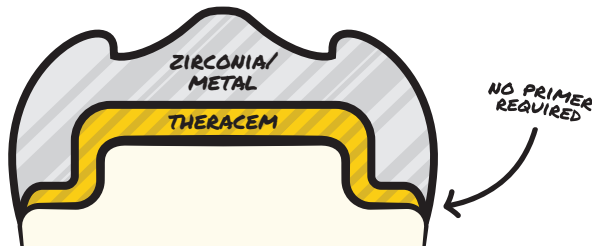
1 Calcium & Fluoride Release

TheraCem is a next generation cement that releases both fluoride and calcium. TheraCem transitions from an acidic to an alkaline pH in minutes.¹ Calcium release stimulates hydroxyapatite and secondary dentin bridge formation.²



2 Strong Bond Strength to Zirconia and Metal

TheraCem contains MDP, an adhesion promoting monomer. MDP will bond to zirconia and metal via an addition reaction, which generates a covalent bond and ultimately, bond strength. This phenomenon allows TheraCem to bond to zirconia and metal substrates without the use of an additional primer.



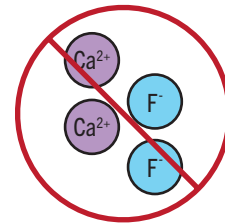
3 Save a Step! Save \$! Save Time!

With TheraCem, there is **NO** need for a primer when cementing to zirconia or other metal substrates.



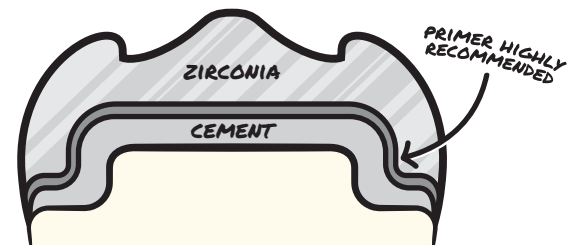
No Calcium or Fluoride Release

Most resin cements do not release fluoride and calcium at the same time.



Lower Bond Strength to Zirconia Without an MDP Primer Pretreatment

Research has shown that resin cements show **higher shear bond strength values** when the zirconia substrate has been pretreated with an MDP containing primer prior to cementation.^{3,4}



More Steps. More \$. More Time.

Research shows that for resin cements it is recommended to use an **additional primer** when cementing to zirconia and metal substrates and a silane agent when cementing to glass ceramics (porcelain, lithium disilicate etc.) in order to achieve a reliable bond strength.^{3,4,5}

1. New Self-adhesive Resin Cement With Alkaline pH. Chen L, Gleave C, Suh B, J Dent Res96(A):#286, 2017.

2. Liang Chen, Christine Gleave, Byong In Suh. Apatite Formation on Experimental Bioactive Self-Adhesive Resin Cement. 2016 IADR/APR General Session (Seoul, Korea), Presentation ID:0280

3. Myung-Jin Lim, Mi-Kyung Yu, Kwang-Won Lee. The effect of continuous application of MDP-containing primer and luting resin cement on bond strength to tribochemical silica-coated Y-TZP. Restorative Dentistry and Endodontics. 2018 May; 43(2): e19.

4. Renally Bezerra Wanderley Lima, Suelene Chasse Barreto, Najm Mohsen Alfrsany, Thiago Soares Porto, Grace Mendonça De Souza, Mario Fernando De Goes. Effect of Silane and MDP-based Primers on Physico-Chemical Properties of Zirconia and Its Bond Strength to Resin Cement. Academy of Dental Materials 2019 Nov;35(11):1557-1567.

5. Ariene Arcas Leme, André Luis Pinho, Luciano de Gonçalves, Lorenzo Correr-Sobrinho, Mario Alexandre Sinhoretí. Effects of Silane Application on Luting Fiber Posts Using Self-Adhesive Resin Cement. The Journal of Adhesive Dentistry 2013 Jun;15(3):269-74.

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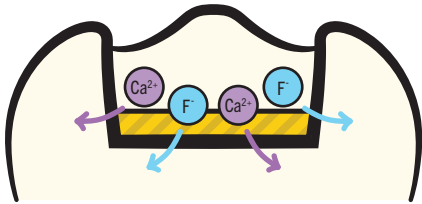
Self-Adhesive Resin Cement

VS

Glass Ionomers/ Resin-Modified Glass Ionomers Cements

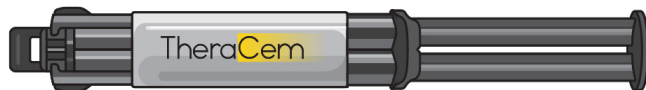
1 Calcium & Fluoride Release

TheraCem continuously releases **both fluoride and calcium**. TheraCem transitions from acidic to an alkaline pH in minutes.¹



2 Easy Auto-Mix Dual-Syringe Delivery

TheraCem's **easy and fast auto-mix dual-syringe** provides a consistent mix for immediate delivery.



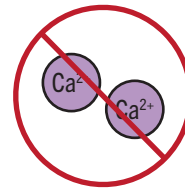
3 Save a Step! Save \$! Save Time!

TheraCem contains MDP! So there is **NO** need for a primer when cementing to zirconia or other metal or alumina substrates.



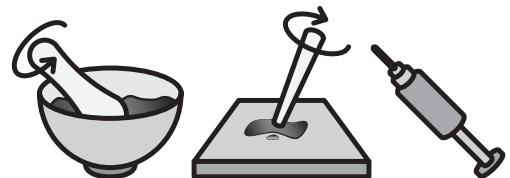
No Calcium Release

Glass ionomers & resin-modified glass ionomers have fluoride release but **do not contain or release calcium**.



Manual Mixing

Glass ionomers or resin-modified glass ionomers typically **require manual mixing, trituration, or a special dispenser**.



More Steps. More \$. More Time.

Resin-modified glass ionomers may recommend the use of an **additional primer** when cementing to zirconia and metal substrates.^{2,3}



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2. Myung-Jin Lim, Mi-Kyung Yu, Kwang-Won Lee. The effect of continuous application of MDP-containing primer and luting resin cement on bond strength to tribochemical silica-coated Y-TZP. Restorative Dentistry and Endodontics. 2018 May; 43(2): e19.

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