

COMPETITIVE COMPARISON

TheraCem[®]

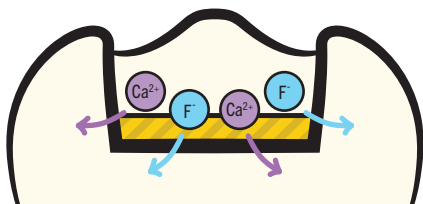
Self-Adhesive Resin Cement

VS

Self-Adhesive Resin Cements

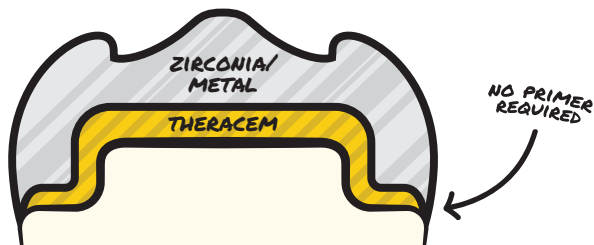
1 Calcium & Fluoride Release

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.



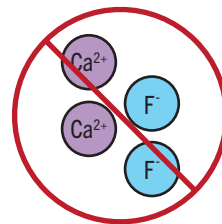
3 Save a Step! Save \$! Save Time!

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



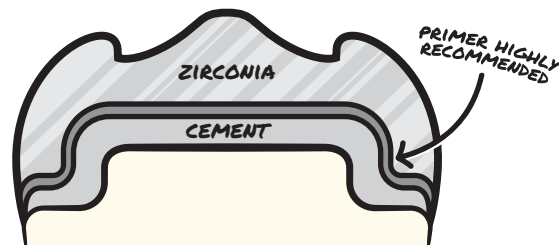
No Calcium or Fluoride Release

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, Suleim Chasse Barreto, Najm Mohsen Alfrisy, 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 Sinhoretii. 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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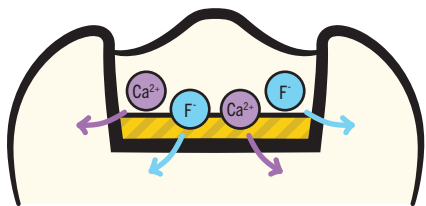
Self-Adhesive Resin Cement

VS

Glass Ionomers/ Resin-Modified Glass Ionomers Cements

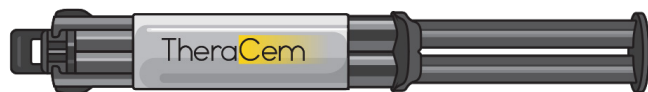
1 Calcium & Fluoride Release

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.



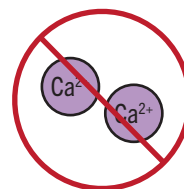
3 Save a Step! Save \$! Save Time!

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



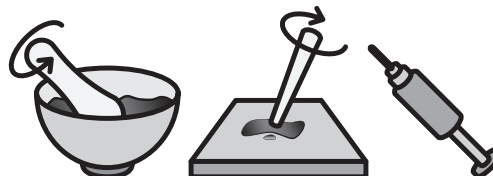
No Calcium Release

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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