



## References – Clinical studies

### EQUIA FORTE®

<b>TITLE</b>	<b>Comparative evaluation of postoperative sensitivity in bulk fill restoratives: A randomized controlled trial</b>
<b>REFERENCE</b>	Hirani RT <i>et al</i> , J Int Soc Prev Community Dent. 2018 Nov-Dec;8(6):534-539. doi: 10.4103/jispcd.JISPCD_218_18
Patients treated with EQUIA Forte and Activa Bioactive presented lower POS when compared to groups restored with Cention N.	
Number of Patients evaluated: 144 patients	

<b>TITLE</b>	<b>Glass hybrid restorations as an alternative for restoring hypomineralized molars in the ART model</b>
<b>REFERENCE</b>	Grossi J <i>et al</i> , BMC Oral Health (2018) 18:65 doi: 10.1186/s12903-018-0528-0
A success rate of 98.3% was observed after 6 and 12 months. The only failure occurred in a restoration involving three or more surfaces presenting the breakdown of all cusps.	
Number of Patients evaluated: 44 patients Number of restorations: 60 restorations	

<b>TITLE</b>	<b>Multi-center clinical evaluation of bulk-fill glass hybrid restorations: One-year report</b>
<b>REFERENCE</b>	Turkun S <i>et al</i> , J Dent Res Vol 97(Spec Iss B): 1972. <a href="https://iadr2018.zerista.com/event/member/492513">https://iadr2018.zerista.com/event/member/492513</a>
In this split-mouth study design, EQUIA Forte and the composite Tetric EvoCeram were equally successful in moderate to large size Class II restorations	
Number of Patients evaluated: 180 patients Number of restorations: 360 restorations	

<b>TITLE</b>	<b>12-month clinical-performance of a glass-hybrid-restorative in non-carries-cervical-lesions of patients with bruxism</b>
<b>REFERENCE</b>	Gurgan S <i>et al</i> , J Dent Res Vol 97(Spec Iss B):2448. <a href="https://iadr2018.zerista.com/event/member/492524">https://iadr2018.zerista.com/event/member/492524</a>
EQUIA Forte performed as successfully as the composite (Ceram. X Mono) in NCCLs of patients with bruxism.	
Number of Patients evaluated: 25 patients Number of restorations: 148 restorations	





## References – Clinical studies

### EQUIA FORTE®

<b>TITLE</b>	<b>Does the depth of the cavity and the activity of the lesion in primary molars influence in the success of the restoration?</b>
<b>REFERENCE</b>	Baumotte L <i>et al</i> , J Dent Res Vol 98 (Spec Iss A): 0605 <a href="https://iadr2019.zerista.com/event/member/582088">https://iadr2019.zerista.com/event/member/582088</a>
EQUIA Forte showed a success rate of 94% after a mean evaluation time of 13.3 months. Cavity depth and caries lesion activity did not influence the restoration's survival.	
Number of Restorations: 45 restorations	

<b>TITLE</b>	<b>Two-year multicentre clinical evaluation of glass hybrid system vs. resin composite</b>
<b>REFERENCE</b>	Miletic I <i>et al</i> , J Dent Res Vol 98 (Spec Iss A): 3733 <a href="https://iadr2019.zerista.com/event/member/582960">https://iadr2019.zerista.com/event/member/582960</a>
EQUIA Forte presented a good clinical performance, similar to composite (Tetric EvoCeram) in a split mouth study design.	
Number of Patients evaluated: 180 patients Number of restorations: 360 restorations	

<b>TITLE</b>	<b>Glass Hybrid Versus Composite for Restoration of Non-carious Cervical Lesions</b>
<b>REFERENCE</b>	Göstemeyer G <i>et al</i> , J Dent Res Vol 98 (Spec Iss A): 3725, <a href="https://iadr2019.zerista.com/event/member/582952">https://iadr2019.zerista.com/event/member/582952</a>
After 36 months, survival rate of EQUIA Forte was similar to that of nano-hybrid composite (Filtek Supreme XTE). EQUIA Forte restorations required less treatment time.	
Number of Patients evaluated: 88 patients Number of restorations: 175 restorations	

<b>TITLE</b>	<b>Twenty-four-month clinical performance of a glass hybrid restorative in non-carious cervical lesions of patients with bruxism: a split-mouth, randomized clinical trial</b>
<b>REFERENCE</b>	Koc Vural U <i>et al</i> , Clin Oral Investig. 2020 Mar;24(3):1229-1238. doi: 10.1007/s00784-019-02986-x
EQUIA Forte showed good performance for the restoration of NCCLs when compared to Ceram.X One Universal. Cumulative survival rates was 84.1%	
Number of Patients evaluated: 25 patients Number of restorations: 148 restorations	



## References – Clinical studies

### EQUIA FORTE®

<b>TITLE</b>	High-viscosity glass ionomer used with selective cavity preparation in MIH
<b>REFERENCE</b>	Sezer B <i>et al</i> , J Dent Res Vol 98 (Spec Iss B): 0568 <a href="https://www.ced-iadr2019.com/Madrid_Abstract_BOOK_Sept_7.pdf">https://www.ced-iadr2019.com/Madrid_Abstract_BOOK_Sept_7.pdf</a>
After 2 years, EQUIA Forte presented a high survival rate in MIH affected first permanent molars. The probability of being satisfied at 12 months and 24 months were respectively 88,2%,78.6%.	
Number of Patients evaluated: 58 patients Number of restorations: 134 restorations	

<b>TITLE</b>	Clinical performance of a glass hybrid restorative in extended size class II cavities
<b>REFERENCE</b>	Gurgan S <i>et al</i> , Oper. Dent. 2019 Oct 29. doi: 10.2341/18-282-C
EQUIA Forte performed as good as the micro-hybrid composite (G-ænial Posterior), with a success rate of 100% at the 24-month recall.	
Number of Patients evaluated:37 patients Number of restorations: 108 restorations	

<b>TITLE</b>	48-Month clinical performance of a glass hybrid in extended size class II cavities
<b>REFERENCE</b>	Gurgan S. <i>et al</i> , J Dent Res Vol 99 (Spec Iss A): 1389 <a href="https://iadr2020.zerista.com/event/member/678011">https://iadr2020.zerista.com/event/member/678011</a>
EQUIA Forte and the micro-hybrid composite (G-ænial Posterior) presented acceptable surface and marginal adaptation characteristics, rendering the glass hybrid a trustable permanent material for large Class II cavities.	
Number of Patients evaluated: 32 patients Number of restorations: 90 restorations	

<b>TITLE</b>	ART restorations in MIH severely affected molars: 4 years follow-up
<b>REFERENCE</b>	Marques M. <i>et al</i> , J Dent Res Vol 99 (Spec Iss A): 2384 <a href="https://iadr2020.zerista.com/event/member/677327">https://iadr2020.zerista.com/event/member/677327</a>
The survival rate was 61.9% after a 48 months. EQUIA Forte can be a trustable option for treating severely MIH affected teeth.	
Number of Patients evaluated: 44 patients Number of restorations: 60 restorations	



## References – *in vitro* studies

### EQUIA Forte HT®

<b>TITLE</b>	<b>Bond strength to tooth structure and flexural properties of a new precapsulated glass-ionomer cement for filling</b>
<b>REFERENCE</b>	Irie M <i>et al</i> , The J of the Jap Soc for Dent Mater and Devices Vol.37 Special Issue 72, p.89 (2018).
EQUIA Forte HT (named Equia 3 in this study) presented higher shear bond strength to enamel (11.4 MPa) and to dentin (13 MPa), greater flexural strength (36.6 MPa) and modulus of elasticity (16.8 GPa) when compared to Ketac Universal.	

<b>TITLE</b>	<b>Comparative radiopacity of different posterior restorative materials</b>
<b>REFERENCE</b>	S. Turkun <i>et al</i> , CED-IADR, Madrid, 2019. <a href="https://www.ced-iadr2019.com/Madrid_Abstract_BOOK_Sept_7.pdf">https://www.ced-iadr2019.com/Madrid_Abstract_BOOK_Sept_7.pdf</a>
Radiopacity values presented by EQUIA Forte HT (2.24±0.22) are in agreement with ISO requirements.	

<b>TITLE</b>	<b>Evaluation of mechanical properties of new GI-restorative (EQUIA Forte HT)</b>
<b>REFERENCE</b>	Shimada Y <i>et al</i> , J Dent Res Vol 98 (Spec Iss A): 3662 <a href="https://iadr2019.zerista.com/event/member/582696">https://iadr2019.zerista.com/event/member/582696</a>
EQUIA Forte HT presented high flexural strength (45.1 MPa) and high translucency (55.9).	

<b>TITLE</b>	<b>Comparison of compressive strength and fluoride release of GIC restoratives</b>
<b>REFERENCE</b>	Mori D <i>et al</i> , J Dent Res Vol 99 (Spec Iss A): 1856, <a href="https://iadr2020.zerista.com/event/member/677908">https://iadr2020.zerista.com/event/member/677908</a>
EQUIA Forte HT presented the highest strength and the highest amount of fluoride release when compared to other materials (Ketac Universal, Riva Self cure, Chemfil Rock) in different time intervals.	



## References – *in vitro* studies

### EQUIA Forte HT®

<b>TITLE</b>	<b>Stabilization time of chemical bonds in restorative glass-ionomer/glass-hybrid cements</b>
<b>REFERENCE</b>	Pascotto R <i>et al</i> , J Dent Res Vol 99 (Spec Iss A): 1051, <a href="https://iadr2020.zerista.com/event/member/679151">https://iadr2020.zerista.com/event/member/679151</a>
Time for chemical bonds stabilization of EQUIA Forte HT was 740s, while for Riva it was 393s. The longer it takes to stabilize the chemical bonds, the greater the amount of chemical bonds, improving the mechanical properties.	

<b>TITLE</b>	<b>Compression fracture resistance of four different glass-ionomer cements</b>
<b>REFERENCE</b>	Glavina D <i>et al</i> , J Dent Res Vol 99 (Spec Iss A): 1284, <a href="https://iadr2020.zerista.com/event/member/677597">https://iadr2020.zerista.com/event/member/677597</a>
EQUIA Forte HT presented significantly higher fracture resistance than other materials (EQUIA Forte HT 245,3N; Ketac Molar 140,7N; IonoStar Molar 114,5N).	

<b>TITLE</b>	<b>Compressive strength, microhardness, acid erosion of restorative glass hybrid/glass-ionomer cements</b>
<b>REFERENCE</b>	Navarro M <i>et al</i> , J Dent Res Vol 99 (Spec Iss A):1310, <a href="https://iadr2020.zerista.com/event/member/679417">https://iadr2020.zerista.com/event/member/679417</a>
EQUIA Forte HT presented the highest values for compressive strength (207.58MPa) when compared to other groups. Microhardness values were 130.95KHN, higher than those of Ketac Molar. No difference on the acid-erosion was detected among the groups.	

<b>TITLE</b>	<b>The influence of surface resin coating on the color stability of restorative glass-ionomer /glass hybrid cements</b>
<b>REFERENCE</b>	Menezes-Silva R <i>et al</i> , J Dent Res Vol 99 (Spec Iss A):1312, <a href="https://iadr2020.zerista.com/event/member/679419">https://iadr2020.zerista.com/event/member/679419</a>
The surface coating improved color stability overtime. Ketac Universal presented significant color alterations when compared to EQUIA Forte HT.	



## References – *in vitro* studies

### EQUIA Forte HT<sup>®</sup>

<b>TITLE</b>	<b>Mechanical and optical properties of a novel bulk fill glass hybrid restorative dental material</b>
<b>REFERENCE</b>	Shahrooz S <i>et al</i> , J Dent Res Vol 99 (Spec Iss A): 3382, <a href="https://iadr2020.zerista.com/event/member/677755">https://iadr2020.zerista.com/event/member/677755</a>
EQUIA Forte HT presented outstanding translucency and flexural strength.	

<b>TITLE</b>	<b>Effect of Coca-Cola on microhardness of glass-hybrid and glass ionomer materials</b>
<b>REFERENCE</b>	Baraba A <i>et al</i> , J Dent Res Vol 99 (Spec Iss A): 1313, <a href="https://iadr2020.zerista.com/event/member/679420">https://iadr2020.zerista.com/event/member/679420</a>
After 3 months, microhardness of EQUIA Forte HT (with and without coat) was not affected by the exposure to Coca-Cola .	