SCIENTIFIC INFORMATION

Grandio – 4-year clinical study

VOCO GmbH, Department of Knowledge Communication

Anton-Flettner-Str. 1-3
Postfach 767
D-27472 Cuxhaven

Tel.: +49 (0)4721-719-0
Fax: +49 (0)4721-719-109

info@voco.de
www.voco.de

Grandio, the nano-hybrid composite, is distinguished by its outstanding physical characteristics. Whether these properties lead to an intact treatment in the long-term under actual conditions was examined in two independent 4 year clinical studies.

University of Erlangen Study[1]

36 patients were followed in this study. Class II cavities were treated exclusively with a combination of Solobond M and Grandio. All restorations were clinically acceptable after 4 years; No restorations were lost. A more exact evaluation is displayed in Figure 1.

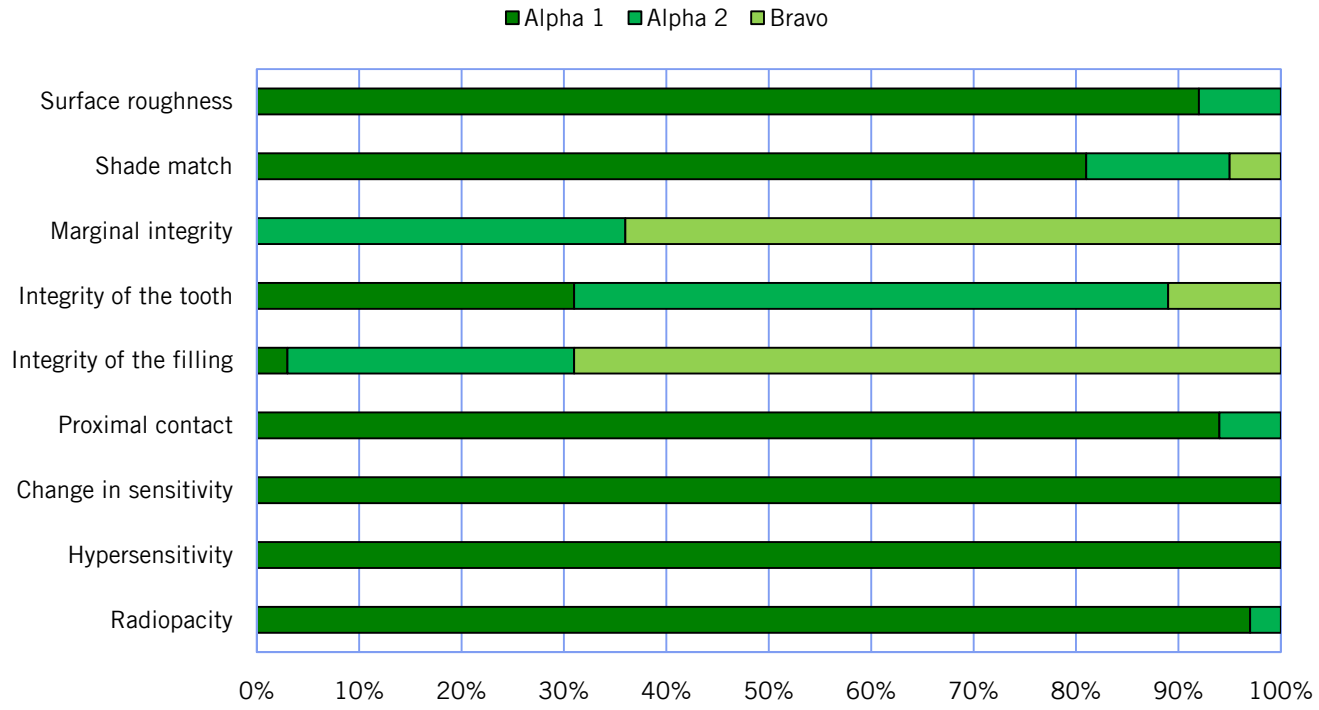

Figure 1: Result of the 4 year study at the University of Erlangen [1]

Study at the University of Tanta, Egypt [2]

65 Class V cavities were treated with a combination of Futurabond NR and Grandio in this study. All of the restorations in this study were also clinically acceptable after 4 years. As in the study shown above, the retention rate was 100%. A more exact evaluation is shown in Figure 2. In this clinical long-term study, Grandio also exhibited excellent long-term results for the treatment of Class V cavities.

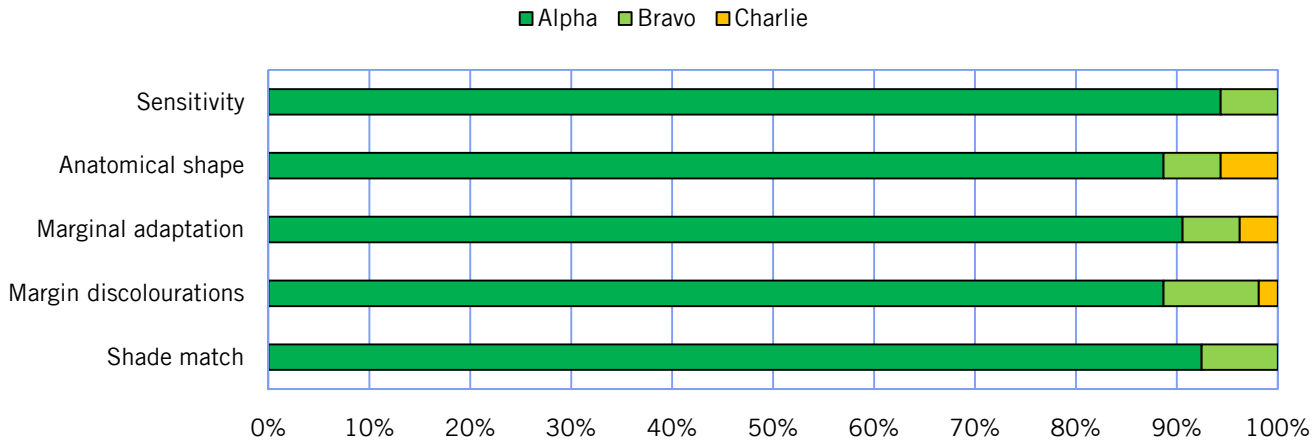

Figure 2: Result of the 4 year study at the University of Tanta [2]

The effect of an additional etching was also examined in this study. The study came to the conclusion that an additional enamel etching did not provide a positive effect. On the contrary, it was determined that etching the enamel and dentine (total etch) causes significant deterioration.

Conclusion: Treatment with Grandio in both Class II and Class V cavities also yielded excellent results after 4 years. The excellent results determined *in vitro* thus also prove true in practice.

[1] N. Krämer, C. Reinelt, M. Taschner, R. Frankenberger, *86th IADR Toronto 2008*, Poster 1764.
[2] A. I. Abdalla, *Int. J. Clin. Dent.* **2009**, *1*, 191-200.