During their development, dental materials have to undergo various in vitro-tests to evaluate their mechanical, chemical and biological properties.

However, their clinical performance can only be evaluated in clinical studies under the real conditions of daily routine in dental offices.

The following in vivo-study done by the Dental Advisor indicates the excellent performance of Venus Pearl restorations under the conditions of normal dental surgeries.

Giving a hand to oral health.
**Clinical study – Dental Advisor, USA**

**Venus Pearl with iBOND Total Etch and iBOND Self Etch (1 year)**

**Objective**

Aim of this study was to evaluate the clinical behaviour of Venus Pearl restorations bonded with either iBOND Total Etch or iBOND Self Etch.

**Materials & Methods**

190 restorations were placed divided into 19 % class I, 45 % class II, 4 % class III, 5 % class IV and 27 % class V restorations. 60 % thereof were bonded using iBOND Self Etch, in all other restorations iBOND Self Etch was used. The restorations were evaluated at the recall session regarding fracture/chipping, aesthetics, marginal discolouration, wear, post-operative sensitivity and retention. For this purpose a 5 step rating scale was used: 1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent. The recall rate was 88 % after 1 year.

**Results**

Only one class II filling showed a fracture. Five restorations had marginal discolourations (thereof four minor stainings and one secondary caries). Only one iBOND Total Etch restoration displayed a post-operative sensitivity. The overall retention rate of the Venus Pearl restorations in this evaluation was 99 %. Two iBOND Total Etch class V restorations were lost.

**Conclusion**

The evaluated Venus Pearl restorations received excellent ratings for their clinical behaviour after one year regardless if iBOND Total Etch or iBOND Self Etch were used and independent from the cavity class. The clinical performance rate of Venus Pearl and iBOND Total Etch or iBOND Self Etch was 99 %.

**Source**

The Dental Advisor, Vol. 31, No. 07. September 2014: 9-10. Operative Dentistry, 2016, 41 (4): 424-431. The study was abbreviated, summarised and commented and all diagrams and titles have been established by Kulzer.