

# Herculite™ Ultra and Optibond™ XTR Five-year Clinical Performance



RATINGS:

Excellent	+++++
Very Good	++++
Good	+++

## LONG-TERM CLINICAL PERFORMANCE

### Kerr Corporation

www.kerrdental.com

### Description

**Herculite™ Ultra** is a nanohybrid composite available in both bulk syringe and Unidose delivery systems. It is a light-cured material designed for direct placement of all anterior and posterior composites with a wide variety of Enamel and Dentin shades available, including XL Enamel Shades for bleached and deciduous teeth and Light Incisal Shades for a high level of translucency. **Optibond™ XTR** is a self-etch universal adhesive system that includes a self-etch primer and adhesive. It is available in bottle and Unidose delivery systems and can be utilized for both direct and indirect restorations. It is compatible with all composites, self-cured and dual-cured resin cements and core materials. **OptiBond™ XTR** can also be used to prime metal, ceramic, and composite substrates, resulting in an improved bond.

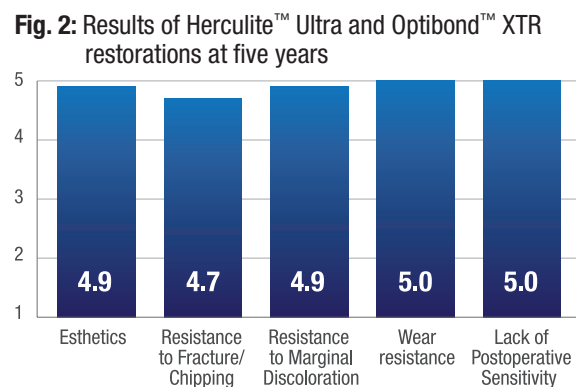
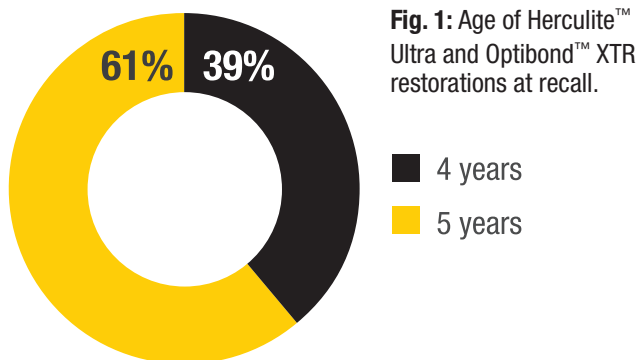


This product received a **98% clinical performance rating\* at the 5-year recall.**

\*The 'clinical performance rating' was obtained by finding the average of the values in each category in Figure 2 and dividing by the number of total categories.

## Clinical Evaluation Protocol

During a five-year period, **165** restorations were placed with **Herculite™ Ultra** and **Optibond™ XTR** by four dentists. One hundred fifty-eight restorations were used in posterior teeth, with seven being placed in the anterior region.



Each category was rated on a scale of 1-5 rating scale: 1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent.

## Results at Five Years

Of the **165** restorations that were recalled, **64** were in function for four years and **101** were in function for five years. The recalled restorations were evaluated for: esthetics, resistance to fracture/chipping, resistance to marginal discoloration, wear resistance, and lack of postoperative sensitivity as reported by patients.

## Consultants' Comments

- *“Herculite™ Ultra blends nicely with surrounding tooth structure.”*
- *“I like the expanded uses of Optibond™ XTR as a universal bonding system.”*
- *“I have been a Herculite™ user for many years and have been very happy with it. Herculite™ Ultra is even better.”*

## Clinical Observations

### Esthetics

Esthetics was rated excellent. The vast majority of restorations blended very well with the surrounding tooth structure. Five percent of the restorations were judged to be opaque.

### Resistance to Fracture/Chipping

Resistance to fracture/chipping was rated excellent. During the evaluation period, 9 of 165 restorations were noted to have fractured or chipped, four of which were large restorations and required replacement with crowns. All restorations that experienced fracture or chipping were in posterior teeth. None of the chipped restorations required replacement and all fractures/chipping occurred at 4-year recall or after.

### Resistance to Marginal Discoloration

Resistance to marginal discoloration was rated excellent. One restoration (#15 MOD) was replaced with a crown due to recurrent decay unrelated to the composite. Another restoration had staining at the margin, which was successfully removed by repolishing it.

### Wear Resistance

Wear resistance was rated excellent, with only one restoration requiring replacement at two years because the patient was a heavy bruxer and the opposing tooth had a zirconia crown.

### Lack of Postoperative Sensitivity

Lack of postoperative sensitivity was rated excellent. Only one report of sensitivity was noted at a one-year recall and the sensitivity subsided later.

## Summary

**Herculite™ Ultra** and **Optibond™ XTR** performed well at the five-year recall. Restorations received excellent ratings for esthetics, resistance to fracture/chipping, resistance to marginal discoloration, wear resistance, and lack of postoperative sensitivity as reported by patients. **Herculite™ Ultra** and **Optibond™ XTR** received a 98% clinical performance rating at five years.

***Herculite Ultra™ and Optibond™ XTR performed exceptionally well in all categories.***