

ACE Panel Report

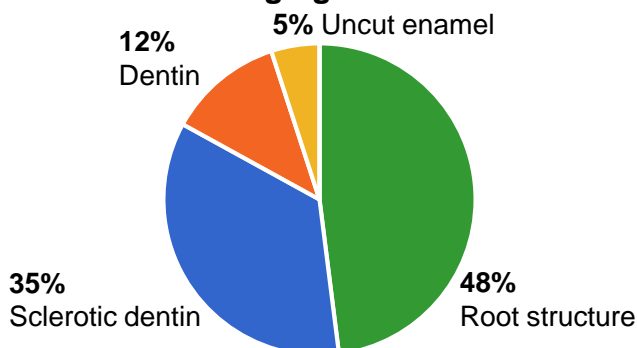
Bonding Agents

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Survey Results

Data reflect the responses of 291 ACE Panel member dentists in the United States.

Most Challenging Surface to Bond



Clinical Challenges

Experienced with Bonding Agents

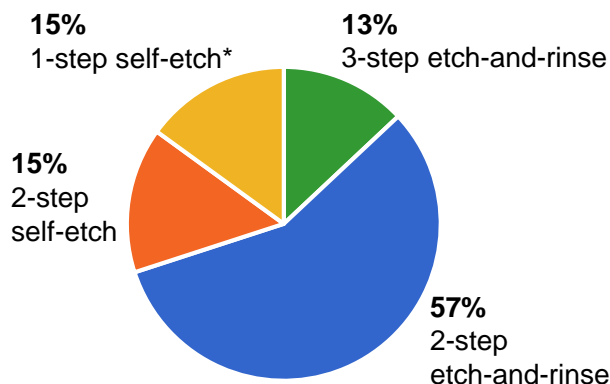
54% experience marginal discoloration

20% report post-operative sensitivity*

13% are equally concerned about dental debonding and secondary caries

*2 of 10 respondents report post-operative sensitivity in 5% to 25% of total restorations.

Preferred Bonding Techniques



*Of these, 9 of 10 respondents use selective etch.

Top 5 Preferred Products

1. **SCOTCHBOND UNIVERSAL ADHESIVE**
(3M Oral Care)
 2. **OPTIBOND SOLO PLUS**
(DanaHer/KaVo-Kerr)
 3. **PRIME & BOND ELECT**
(Dentsply Sirona)
 4. **CLEARFIL SE BOND**
(Kuraray)
 5. **ADHESE ONE F VIVAPEN**
(Ivoclar Vivadent)
- ALL BOND UNIVERSAL**
(Bisco Dental)

Clinical Insight: Help Prevent Post-Operative Sensitivity

A number of factors contribute to the occurrence of post-operative sensitivity, attributable to both technique and product selection. Post-operative sensitivity generally occurs due to inadequately sealed dentinal tubules and/or open margins of the restoration. Post-operative sensitivity is also found more often in Class I as opposed to Class II restorations because of the cavity configuration, which can induce additional stress at the bonding interfaces. Here are some steps that can help prevent long term (> 30 days) post-operative sensitivity:

- Maintain isolation throughout the restorative steps.
- Place an adequate liner for pulp protection on deep cavities.
- Selectively etch the enamel margins with self-etching systems.
- Use a dentin desensitizer that is compatible with or part of your bonding system.
- Remove excess water, but keep cavity visibly moist after acid etching for dentin hybridization.
- Light-cure the adhesive system as per the manufacturer's instructions.
- Place the resin composite using an incremental technique.

References: Bedran-Russo, A, et al., *Dent Clin North Am*, 2017 Oct;61(4):713-731; Berkowitz g, et al., *Compend Contin Educ Dent*, 2013 Mar;34(3):e44-52, Hande Sar Sancakli, et.al. *Eur J Dent*, 2014 Jan-Mar; 8(1): 15-22, Porto, Isabel, *IJRD Issue 1, 2012 review article*.

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