



# Technical Bulletin

## NX3

NX3 Nexus® Third Generation is an esthetic permanent cement that represents a breakthrough in resin cement technology. Employing a proprietary redox initiator system and a well-balanced resin matrix, NX3 retains all the desirable attributes a resin cement has to offer—color stability, high bond strengths, good mechanical properties, low water solubility and good translucency. Universally indicated for all indirect applications including veneers, NX3 dual-cure and light-cure cements deliver unmatched esthetics, excellent handling properties, enhanced adhesion to all substrates and great versatility. **NX3 has excellent adhesion to CAD/CAM blocks** in addition to dentin, enamel, ceramic, porcelain, resin and metal.

**Optimal handling** – Easy cleanup in gel state

**Simplified delivery** – Dual-cure automix syringe eliminates hand mixing

**Light-cure applications** – Cement for veneers and indications requiring unlimited work time

**Self-etch or total-etch** – Bonding protocol compatibility. No dual-cure activator required

**Superior color stability** – BPO- and Amine-free initiator system offers long-term esthetics in both dual-cure and light-cure cements

*“NX3 is by far the easiest resin cement to use clinically for all ceramic restorations. The gel phase allows an appropriate amount of time for proper removal of excess cement, while its bond strengths make this product the leader in the industry.”*

*Dr. Armen Mirzayan  
Cerecdoctors.com  
Co-founder*



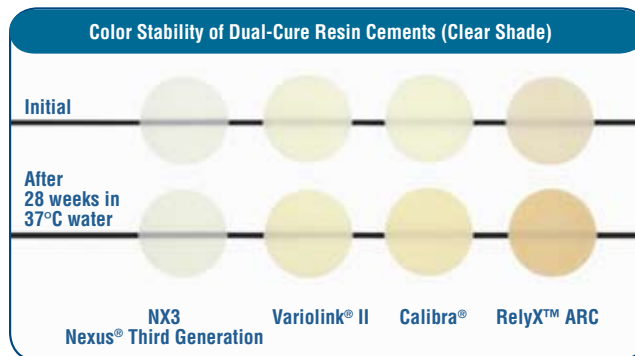
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## Unparalleled Color Stability

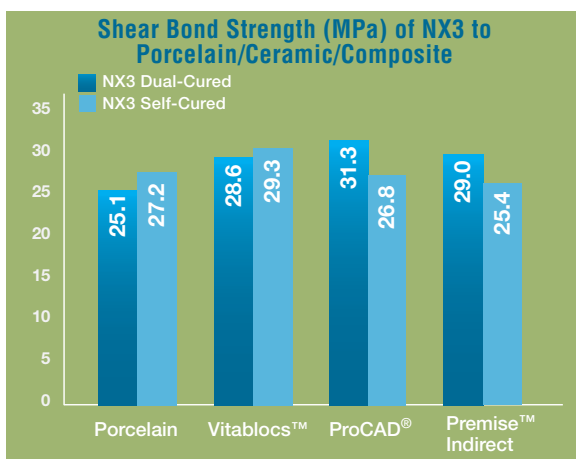
CAD/CAM restorations such as Vitablocs, ProCAD and Zirconia are more opaque than traditional porcelain restorations. Therefore, using just a light-cure cement is a concern due to inadequate light penetration. But with NX3, for the first time, you not only get the reliable curing of a dual-cure resin cement but more importantly—you get unmatched color stability due to Kerr’s proprietary redox initiator system.

Breakthrough technology is the reason behind the outstanding performance of NX3. Most resin cements on the market today use a *benzoyl peroxide* (BPO) and *tertiary amine* pair as their redox initiator system to initiate polymerization and curing—a system inherent with problems as it compromises the esthetics of ceramic restorations. The unique redox initiator system in NX3 eliminates these problems.

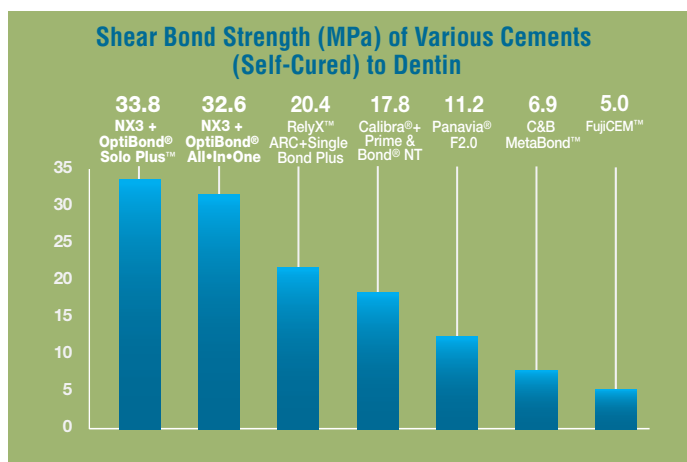
Initiator systems using BPO/amine have two significant color-stability flaws. First, the catalyst paste on its own will progressively discolor (yellowish tint) upon storage on the shelf. Second, the self-cured or dual-cured cement will progressively discolor over time, compromising long-term esthetics. The proprietary redox initiator system present in NX3 offers significant advantages over BPO/amine initiator systems, eliminating the undesirable discoloration for a more esthetic restoration.



Internal data. Available upon request.



Internal data. Available upon request.



24-hour internal testing. Data available upon request.

## Bonding to Composite and Ceramic Substrates

NX3, which requires an adhesive, achieves excellent bond strengths and is universally indicated for all indirect applications—all ceramic-based restorations, including CAD/CAM blocks, zirconia-/alumina-strengthened ceramics, and Premise Indirect—whether NX3 is light-cured or self-cured.

Through the powerful combination of a novel acid-resistant redox initiator system and a unique, well-balanced resin matrix, NX3 eliminates the incompatibility issue that has plagued most resin cements. The end result is a cement compatible with the newer generation acidic adhesive systems, making it well suited for cementing all restorative materials—even metal-based restorations where there is limited or no light accessibility.