N'Durance®

Nano-Dimer conversion technology®

“ The first low shrinkage, low toxicity composite that works for both anterior and posterior teeth, and is compatible with your regular adhesive system:
Another innovation by Septodont ”
For over 30 years, little has changed in Composite Resin Technology...until now!

**The New Resin Behind N’Durance®**

N’Durance® is made of a breakthrough resin - a unique innovative mix of dimethacrylate monomers:
- A proprietary monomer based on Dimer Acid technology, DDCDMA (DimerDicarbamate Dimethacrylate)
- EBPADMA (Ethoxylate Dimethacrylate)
- UDMA (Urethane Dimethacrylate)

**Reduction of bonding failure risks**

Septodont’s unique innovative mix of monomers comes from the Polymer-Induced Phase Separation (PIPS). The PIPS significantly reduces the shrinkage effect of N’Durance® resin, therefore delivering a composite with lower shrinkage values than conventional dimethacrylate systems.

**Best of Both Worlds: High Conversion, Low Shrinkage**

An increase in shrinkage contraction and stress usually accompanies the increase of monomer conversion. N’Durance® shows a unique response: high conversion ratio but low polymerization shrinkage.

**Increased biocompatibility**

The other benefit of this unique mix of monomers is an excellent biocompatibility (evaluated by EVIC France test). The high monomer conversion rate of 75% leads to a smaller amount of free monomers and unpolymerized double cross links in the final restoration, minimizing the risk of any tissue response and postoperative sensitivity.

**Compatibility with all adhesive systems**

N’Durance® can be used with any self-etch or total-etch bonding agent. There are no technique changes from what you have been doing for your composite restorations.
The Optimized Filler Combination Behind N’Durance®

N’Durance® is based on the latest nano-filler technology and consists of an optimized combination of:

- Ytterbium Fluoride Nano Particles (40nm) and Nano Clusters (2-8µm)
- Barium Glass (0.5µm)
- Silica (0.01µm)

Superior Aesthetics for all clinical cases
Available in all 16 Vita® shades, N’Durance® offers a full range of shading possibilities for outstanding aesthetics for both anterior and posterior restorations.
Three additional shades are available: Universal Opaque, Incisal and Bleach White for you to manage easily any clinical situation.
Thanks to its exceptional polishability, N’Durance® will quickly and easily provide the high luster necessary to create natural looking restorations.

Long lasting restorations
N’Durance® high compressive strength, excellent wear resistance and absence of water uptake ensures long term durability of functional properties and aesthetics.

Easy to read X-Rays
N’Durance® exhibits a high radio-opacity to facilitate immediate and long term follow-up of the restorations.

Outstanding handling properties
N’Durance® is a non sticky composite, easy to place and to sculpt.
The right chemistry makes

Low Volumetric Shrinkage
N'Durance® has one of the lowest shrinkage ratios, resulting in less stress on the tooth-restoration interface, thus less risks of bonding failure.

Testing Technique: Value calculated using a Linometer designed by The Academy Center for Dentistry Amsterdam (ACTA)*.

Low Shrinkage Stress
N'Durance® shows one of the lowest shrinkage stress values, resulting in the development of very little stress on the bonding interface with the tooth, thus reducing risks of micro-leakage.

Testing Technique: Value calculated using tensometer designed by The American Dental Association (ADA)*.

High Monomer Conversion
N'Durance® new resin system has the highest intra-oral monomer conversion of the leading composites tested. This high conversion ratio means that there are less free monomers after polymerization, therefore a greater biocompatibility.

Testing Technique: Value calculated by near-infrared*.

Hydrophobic & Zero Solubility
Unlike composites made of conventional resin, N'Durance® shows almost no water uptake, thus no pigment absorption and zero solubility, ensuring over time:
- color stability
- no staining
- functional integrity of the restoration

Testing Technique: Value calculated according to International Standard ISO 4049*

* Source: Septodont Confi-Dental division, R&D Department, data on file.
Excellent Compressive Strength

N’Durance® shows one of the highest compressive strengths, hence protecting the tooth from fractures and stabilizing the tooth-restoration especially when used in posterior restorations.

Testing Technique: value calculated using uni-axial compression machine* 

Low Wear

The wear rate of N’Durance® is comparable with leading composite materials, enabling clinicians to use N’Durance® with confidence in all classes of anterior and posterior restorations.

Source: Dr. Anton de Gee, ACTA, Amsterdam*

Composite

N’Durance® Universal Composites

<table>
<thead>
<tr>
<th>Vita® Shades</th>
<th>20 - 0.25g Unit Dose Capsules</th>
<th>1 - 4.5g Syringe</th>
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<tbody>
<tr>
<td>A1</td>
<td>01-C3011</td>
<td>01-C3051</td>
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<tr>
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<td>Incisal</td>
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Starter Kit: 01-C3002

Includes 40 - 0.25g Unit Dose Capsules
5 Each of A1, A2, A3, A3.5, B1, C2,
Universal Opaque and Incisal Plus Accessories.

Flowable Composite

N’Durance® Dimer Flow Syringes

<table>
<thead>
<tr>
<th>Vita® Shades</th>
<th>2 - 2g Syringes; 20 Tips</th>
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<tbody>
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<td>Tips - 25/BAG</td>
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* Source: Septodont Confl-Dental division, R&D Department, data on file.
Clinical Cases

Case 1: Diastema closure (teeth 11 & 21)

Before

After (1 Year Later)

Courtesy of Dr. Holli Riter, Loma Linda University, USA, Center for Dental Research, School of Dentistry

Case 2: Anterior (tooth 21)

Before

After

Courtesy of Dr. Phil Wander BDS MGDSRCS, General Dental Practitioner, Manchester, United Kingdom

Case 3: Posterior (tooth 36)

Before

After

Courtesy of Dr. Tony Soileau, Private Practice, LaFayette, Louisiana, USA

Case 4: Posterior (tooth 36)

Before

After

Courtesy of Prof. Paul Lambrechts, Catholic University of Leuven, BIOMAT Research Cluster, Department of Conservative Dentistry, Belgium