Competitive Product Comparison

**Filtek™ Supreme Ultra**
Ultra Universal Restorative
(by 3M™ ESPE™)

**Grandio®**
Light-curing nano-hybrid filling material
(by VOCO)

Results:
- Filtek™ Supreme Ultra Universal Restorative retained its polish longer at a substantially higher gloss level than Grandio® Light-curing nano-hybrid filling material.
- The wear rate of Grandio is greater than that of Filtek Supreme Ultra restorative.
- The flexural strength of Filtek Supreme Ultra restorative was measured to be statistically higher than that of Grandio.

**Polish Retention**
Polished tile samples of Filtek Supreme Ultra restorative and Grandio were subjected to 6000 cycles of toothbrush abrasion. Filtek Supreme Ultra restorative retained its polish longer at a substantially higher gloss level than Grandio.

A reflected image of a capsule was then photographed with composite tiles after the 6000 toothbrush abrasion cycles. The clearer and more distinct the reflected capsule image, the smoother the surface. As indicated by the Polish Retention graph, the images on Filtek Supreme Ultra T shades and DEB shades tiles are much clearer and sharper than the image on the Grandio tile.

**In-Vitro Wear**
The in-vitro wear rate of Filtek Supreme Ultra restorative was compared to Grandio after a total of 200,000 cycles of 3-body wear. Filtek Supreme Ultra restorative showed significantly lower in-vitro wear than Grandio.

**Flexural Strength**
The flexural strength of Filtek Supreme Ultra restorative was measured to be statistically higher than that of Grandio.
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<th>Filtek™ Supreme Ultra Universal Restorative by 3M ESPE</th>
<th>Grandio® by VOCO</th>
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| **Composition** | **Resin:** Bis-GMA, Bis-EMA, UDMA and PEGDMA/TEGDMA  
**Filler System:**  
- Non-agglomerated/non-aggregated 20 nm silica filler  
- Non-agglomerated/non-aggregated 4 to 11 nm zirconia filler  
- Aggregated zirconia/silica cluster filler (comprised of 20 nm silica and 4 to 11 nm zirconia particles).  
  - The Translucent shades have an average cluster particle size of 0.6 to 20 microns.  
  - All other shades have an average cluster particle size of 0.8 to 10 microns.  
- Filler loading  
  - 72.5% by wt (55.6% by volume) for the Translucent shades  
  - 78.5% by wt (63.3% by volume) for all other shades. | **Resin:** (BIS-GMA, TEGDMA, UDMA)  
**Filler:** 87% inorganic fillers by weight (71.4% by volume) hybrid composite. |
| **Indications** | • Direct anterior and posterior restorations  
• Core Build-ups  
• Splinting  
• Indirect restorations including inlays, onlays and veneers  
• Class I to V fillings  
• Reconstruction of traumatically affected anteriors  
• Faceting of discolored anteriors  
• Corrections of shape and shade to improve esthetic appearance  
• Splinting, locking of loose anteriors  
• Repair of veneers  
• Core build-up under crowns  
• Especially suitable for composite inlays |
| **Manufacturer’s Claims** | • True nanotechnology  
• Improved esthetics  
  - Improved polish retention  
  - Improved fluorescence  
• Easy to read color coded labels  
• Exceptional handling (Improved Translucent shade handling)  
• Broader range of Body shades  
• Outstanding properties for anterior and posterior use  
• In-vitro wear resistance equivalent to Filtek™ Supreme Plus Universal Restorative  
• Outstanding wear resistance  
• Enhanced color stability  
• Terrific handling characteristics (great sculptability)  
• Low shrinkage  
• Excellent polishability  
• Improved translucency  
• Very high biocompatibility  
• 30 - 50 % less resin compared to standard micro Hybrids  
• Radiopaque |
| **Shades** | **Dentin Shades:** A1, A2, A3, A4, B3, C4, W(White)  
**Body Shades:** A1, A2, A3, A3.5, A4, A6, B1, B2, B3, B5, C1, C2, C3, D2, D3, W(White), WX(Extra White)  
**Enamel Shades:** A1, A2, A3, B1, B2, D2, W(White), WX(Extra White)  
**Translucent Shades:** Clear, Gray, Amber, Blue  
A1, A2, A3, A3.5, A4, B1, B2, B3, C2, C3, D2, D3, Incisal, Opaque A2, Opaque A3.5, Bleach (BL) | 4 g syringes & 0.25 g caps |
| **Delivery** | All shades available in 4 g Syringes or 0.2 g Capsules | Information obtained from the VOCO website and Grandio Instructions for Use |