

Filtek™ Supreme XTE

Flowable Restorative



Technical Data Sheet

Product description

- 3M™ ESPE™ Filtek™ Supreme XTE Flowable Restorative is a low-viscosity, visible light-cured, radio-opaque flowable nanocomposite.
- Filtek Supreme XTE Flowable uses the same unique nanotechnology as Filtek™ Supreme XTE Universal which provides excellent aesthetics, unsurpassed polish retention and low wear. The filler loading is 65% by weight (46% by volume).
- Shrinkage has been reduced by nearly 20% compared to Filtek Supreme XT Flowable.
- Filtek Supreme XTE Flowable is available in 12 shades (A1, A2, A3, A3.5, A4, Opaque A3, B1, B2, C2, D2, W, XW) matching the VITAPAN® Classical Shade Guide and Filtek Supreme XTE Universal. The opacity corresponds to the Body shades of the Filtek Supreme Universal, except for the Opaque A3 shade which corresponds to A3 Dentine.



Indications

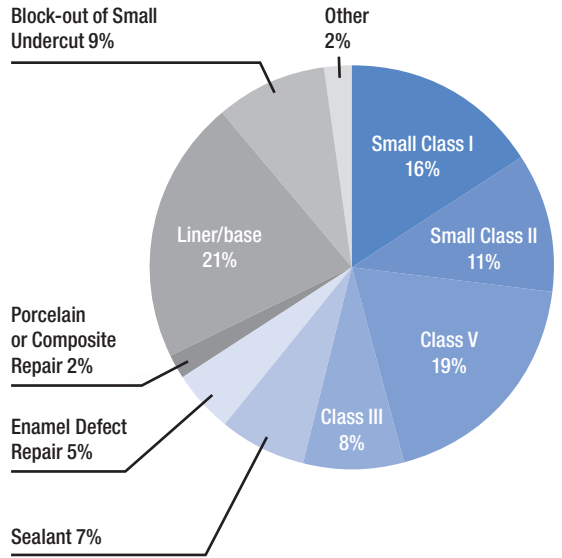
Filtek Supreme XTE Flowable Restorative is indicated for:

- Base/liner under direct restorations
- Undercut blockout
- Class III and V restorations
- Restoration of minimally invasive cavity preparations (including small, nonstress-bearing occlusal restorations)
- Repair of small defects in aesthetic indirect restorations
- Pit and fissure sealant
- Repair of resin and acrylic temporary materials

Clinical Evaluation

- 133 dentists from Germany and Sweden evaluated Filtek™ Supreme XTE Flowable in their dental offices.
- 20% of the dentists used Filtek Supreme XT Flowable, 80% used competing flowable materials, 43% of the latter group used Tetric EvoFlow®.
- The evaluators placed in 5,063 restorations:
 - 70% as a filling material
 - 30% as internal surface application (Liner, Block-out of undercuts)

Total placements – 5,063*



- More than 50% of dentists rated the “Flow” and the “Overall aesthetic results” as better with Filtek™ Supreme XTE Flowable Restorative than their current, most frequently used flowable.
- The new Filtek Supreme XTE Flowable capsule was rated comparable to their current capsule.
- In all the features compared, more than 80% of dentists rated Filtek™ Supreme XTE Flowable Restorative the same or better than their most frequently used flowable.

Filtek™ Supreme XTE Flowable Restorative compared to current flowable*



*Source: 3M ESPE internal data

Technology and Material Properties

3M ESPE introduced nanotechnology into composites in 2002 with 3M ESPE Filtek™ Supreme Universal Restorative. This technology allowed the development of a composite with the strength and wear of a hybrid plus excellent polish retention and optical properties.

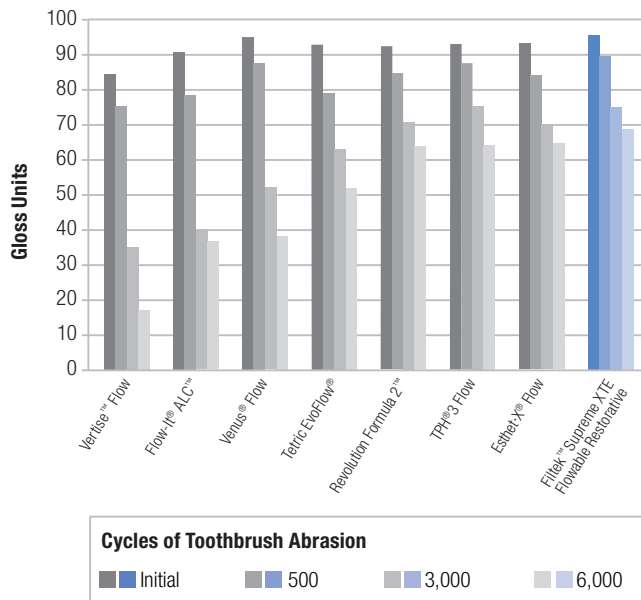
The unique nanotechnology has now been further improved in Filtek Supreme XTE Universal and Flowable: Because it uses the same unique nanotechnology as the Universal, Filtek™ Supreme XTE Flowable offers:

- Excellent aesthetics
- Unsurpassed polish retention
- Low wear

In addition Filtek Supreme XTE Flowable has been improved to

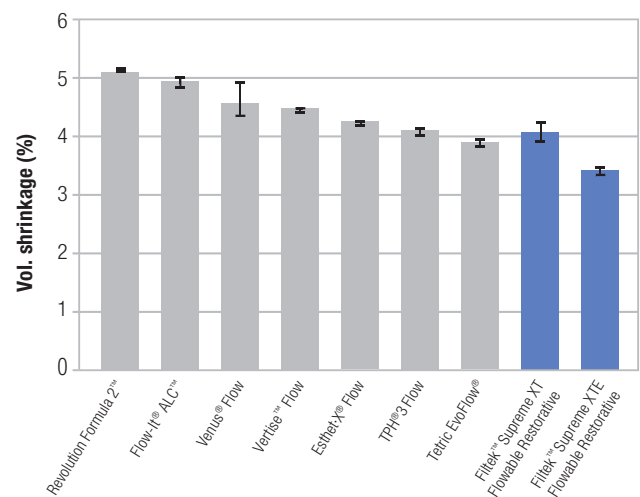
- reduce shrinkage by almost 20% providing one of the lowest rates of shrinkage in the marketplace
 - exhibit fluorescence similar to that of Filtek Supreme XTE Universal
- but keeping the favorable handling the same

Polish retention*



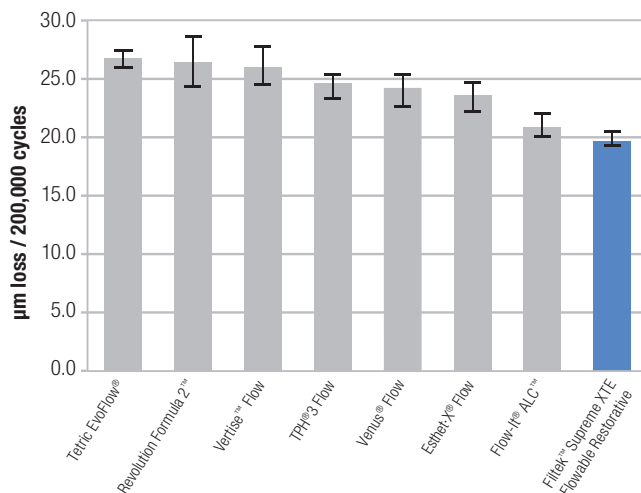
Based on: Method per JADA, 2003 Vol. 134, p 1389

Shrinkage*



Based on: Watts and Cash (Meas. Sci. Technol. 2 (1991), 788-794)

Wear rate (in-vitro)*



Based on: ACTA 3-body wear

Fluorescence*



*Source: 3M ESPE internal data

Technical Data

	Level	Filtek™ Supreme XTE Flowable Restorative	Filtek™ Supreme XT Flowable Restorative
Shrinkage	%	3.28	4.04
	StDev	0.03	0.16
Fracture Toughness	K1c	1.67	1.71
	StDev	0.07	0.10
Compressive Strength	MPa	317.82	313.22
	StDev	17.20	27.43
Diametral Tensile Strength	MPa	67.25	68.91
	StDev	8.51	3.21
Flexural Strength	MPa	120.96	117.19
	StDev	18.64	15.05
Flexural Modulus	MPa	6,815.80	6,410.80
	StDev	924.00	210.00
3-Body Wear Rate	Loss per 200,000/cycles	19.33	16.27
	StDev per 200,000/cycles	0.97	1.07
Polish Retention <i>Initial</i>	Mean	95.15	95.00
	StDev	1.98	1.93
Polish Retention <i>6,000 cycles</i>	Mean	68.87	50.50
	StDev	2.63	4.94
Radiopacity	mm Al	1.70	1.72
	StDev	0.05	0.04

Frequently Asked Questions

What is the difference between Filtek™ Supreme XT Flowable Restorative and Filtek™ Supreme XTE Flowable Restorative?

There have been changes made in the filler, pigments and resin system. These changes have provided for lower shrinkage, better polish retention and fluorescence.

What is the source of the almost 20% shrinkage reduction in Filtek™ Supreme XTE Flowable Restorative compared to its predecessor?

The changes in the resin system components have provided a low viscosity and lower shrinking framework.

Do the shades of Filtek™ Supreme XTE Flowable Restorative match Filtek™ Supreme XTE Universal Restorative?

Yes. In addition, the shades of Filtek™ Supreme XTE Flowable Restorative are the same as its predecessor, Filtek™ Supreme XT Flowable Restorative.



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