



Filtek™

Bulk Fill
Flowable Restorative

3M™ Filtek™ Bulk Fill Flowable Restorative FAQs

General Questions:

1 Why is 3M introducing the new syringe systems for 3M™ Filtek™ Bulk Fill Flowable Restorative?

We introduced Filtek Bulk Fill Flowable Restorative in a new syringe system to give customers the solutions that matter most to them, including virtually no bubbles during syringe application, ideal/excellent tooth prep access (and improved placement) from bendable metal cannula, virtually no waste from run-ons, and better overall comfort while using the syringe.

New Syringe Dispenser Questions:

1 What is the difference between the old and new syringe systems?

Compared to the old syringe systems in Filtek Bulk Fill Flowable Restorative, the inner syringe design has been changed to the new syringe system in 3M™ Filtek™ Supreme Flowable Restorative. This new design allows virtually no bubbles while applying the product and virtually no waste from run-ons. In addition, the new syringe systems feature bendable metal cannula, which allows for ideal tooth prep access and improved placement, and an enhanced, ergonomic syringe design, which allows for improved comfort and easier dispensing.

2 How does the syringe design reduce bubbles and “run-on”?

The new syringe design reduces the amount of bubbles and run-on in two key ways. First, a venting feature in the plunger design allows for air to escape the syringe during the filling process at our manufacturing site. This prevents air from becoming entrapped within the syringe, which can lead to air bubbles during dispensing and run-on or drool after use. Second, the tip is designed with a tapered inner wall that matches the taper angle of the syringe. The continuous and smooth tapered surface allows the pocket of air created with each new tip attached to be pushed out of the tip by the flow front of the paste. In the sharp-cornered previous design, this air could remain in the tip and break off during extrusion and come out into the restoration.

3 Is this syringe patented by 3M only?

3M holds design patents on the syringe, cap, and tip.

4 How does the new plunger design help with the extrusion?

The larger plunger on the new syringe distributes the pressure exerted on your hand or thumb by 58%, resulting in increased comfort during extrusion. The extrusion force required to dispense the flowable is the same, but it feels easier and more comfortable, thanks to the new design.

5 Could we use other manufacturers' flowable syringe dispensing tips with 3M™ Filtek™ Bulk Fill Flowable Restorative syringes?

No, other manufactures' flowable syringe dispensing tips won't fit Filtek Bulk Fill Flowable Restorative syringes.

6 Does the cap need to be put back on the syringe after each use? Why?

Yes, used syringe tips should be discarded after each use to avoid the risk of cross-contamination. In addition, putting the cap back on the syringe after each use helps protect the shelf life of the material and facilitates the cleaning and disinfection of the device. Please refer to the following step-by-step guide when using Filtek Bulk Fill Flowable Restorative syringes.

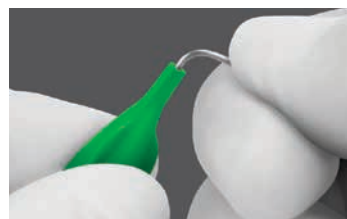
Before using the syringe:



Remove the cap.



Attach the new tip.



Bend the cannula (optional).

After using the syringe:



Remove the tip.



Discard the dispensing tip.



Put the cap back on.

7 Could we use old Filtek Bulk Fill Flowable Restorative dispensing tips with the new Filtek Bulk Fill Flowable Restorative syringes?

No, the dispensing tip of old Filtek Bulk Fill Flowable Restorative is a luer-lock tip, which is NOT compatible with and, therefore, won't fit the new Filtek Bulk Fill Flowable Restorative syringes.

8 How do you properly disinfect the flowable syringe between patients?

To avoid contamination of the syringe during treatment, a standard dental protective sleeve should be used. We recommend using new, unused disposable gloves during all clinical applications for the syringe to reduce the risk of cross-contamination. Avoid contact between reusable parts (e.g., the body of syringe) and the patient's mouth. Always discard the used syringe tips after each use, and we recommend wiping the syringe with a ready-to-use cleaning/intermediate-level disinfecting wipe for the recommended contact time on the wipe label.

9 What is the gauge of the dispensing tips of Filtek Bulk Fill Flowable Restorative?

The gauge of the dispensing tips of Filtek Bulk Fill Flowable Restorative is 19, with the inner dimension of the metal cannula around 0.653 mm.

10 Why are there two different tip gauges between 3M™ Filtek™ Supreme Flowable Restorative and 3M™ Filtek™ Bulk Fill Flowable Restorative?

Filtek Supreme Flowable Restorative is sold with a 20-gauge dispensing tip while Filtek Bulk Fill Flowable Restorative is sold with a 19-gauge dispensing tip. The gauge size indicates the dimension of the metal cannula; the lower the gauge, the more space there is for material to flow through the cannula. Due to differences in filler technology, Filtek Bulk Fill Flowable Restorative has a rheology that makes it slightly more viscous to dispense than Filtek Supreme Flowable Restorative. The 19-gauge tip allows for easier dispensing of Filtek Bulk Fill Flowable Restorative. The difference in tip size accommodates differences in rheology, resulting in similar extrusion force for both Filtek Supreme Flowable Restorative and Filtek Bulk Fill Flowable Restorative.

11 Can the tips from Filtek Supreme Flowable Restorative be exchanged with tips from Filtek Bulk Fill Flowable Restorative?

The difference between tips between Filtek Supreme Flowable Restorative and Filtek Bulk Fill Flowable Restorative is the gauge size of the metal cannula. Both tips will fit the syringe; however, if you put a Filtek Supreme Flowable Restorative tip on the Filtek Bulk Fill Flowable Restorative syringe, the extrusion force will increase due to the smaller inner dimension of the metal cannula.

Material Questions:

1 What types of fillers are used in Filtek Bulk Fill Flowable Restorative?

The major filler component in Filtek Bulk Fill Flowable Restorative is a zirconia/silica filler with a particle size distribution of 0.01 μm to 3.5 μm and an average particle size of 0.6 μm . Ytterbium trifluoride (YbF_3) has been added to increase the radiopacity. The inorganic filler loading is approximately 64.5% by weight (42.5% by volume).

2 What are the differences between Filtek Supreme Flowable Restorative and Filtek Bulk Fill Flowable Restorative?

Filtek Bulk Fill Flowable Restorative allows for up to 4 mm depth of cure and is also indicated for core build-up where at least half the coronal tooth structure is remaining to provide structural support for the crown. Filtek Bulk Fill Flowable Restorative is available in 4 shades, while Filtek Supreme Flowable Restorative features 12 esthetic shades.

The two products also use different filler systems. The filler system used in Filtek Supreme Flowable Restorative is a combination of ytterbium trifluoride filler with a non-agglomerated/non-aggregated surface-modified silica filler and a surface-modified aggregated zirconia/silica cluster filler. The major filler component in Filtek Bulk Fill Flowable Restorative is the zirconia/silica filler found in Filtek Z250 Universal Restorative. Ytterbium trifluoride (YbF_3) has been added to increase the radiopacity.

3 What is the shelf life of Filtek Bulk Fill Flowable Restorative?

The shelf life of Filtek Bulk Fill Flowable Restorative at room temperature is 36 months. Ambient temperature routinely higher than 27°C/80°F may reduce shelf life. Please see the outer package for expiration date.

4 What is the radiopacity of Filtek Bulk Fill Flowable Restorative?

The Filtek Bulk Fill Flowable Restorative has a radiopacity with 240% equivalence to aluminum, or 2.4 times the ISO 4049 standard requirement.

5 What are the curing recommendations?

3M™ Filtek™ Bulk Fill Flowable Restorative is compatible with the following curing lights:

- All halogen lights (with output 400 – 1000 mW/cm²)
- LED lights (with output 1000 – 2000 mW/cm²)

See the curing time recommendations below or within the Instructions for Use on how long to cure Filtek Bulk Fill Flowable Restorative shades.

Cure Time

Shades	Increment Depth	All halogen lights (with output 400 – 1000 mW/cm ²)	3M™ Elipar™ LED lights (with output 1000-2000 mW/cm ²)
U	4 mm	20 sec.	10 sec.
A1, A2, A3	4 mm	40 sec.	20 sec.

6 Do I need a capping layer over Filtek Bulk Fill Flowable Restorative?

Yes, a universal composite capping layer is required over Filtek Bulk Fill Flowable Restorative.

7 Why would I use this as a sealant?

Many dentists and hygienists want to see the underlying tooth structure. By using a more translucent material as a sealant, caries activity in deep grooves or fissures can be more visually monitored.

8 When should I use Filtek Bulk Fill Flowable Restorative vs. Filtek One Bulk Fill Restorative?

The indications for those two products are different:

Indications for Filtek Bulk Fill Flowable Restorative include:

- Base or liner for Class I and Class II restorations
- Class III and Class V restorations
- Pit and fissure sealing and small non-stress-bearing occlusal restorations
- Repair acrylic temporary and composite restorations
- Blocking-out undercuts
- Core build-up

In addition to the indications above, Filtek One Bulk Fill Restorative is also indicated for:

- Direct anterior and posterior restorations (including occlusal surfaces)
- Indirect restorations including inlays, onlays and veneers
- Extended fissure sealing in molars and premolars
- Splinting

Filtek Bulk Fill Flowable Restorative is often chosen when access or adaptation is difficult (due to the needle tip delivery system and more fluid viscosity) or as a base for 3M™ Filtek™ One Bulk Fill in restorations deeper than 5 mm.

Injection Molding/Warming Questions:

1 Can 3M™ Filtek™ Bulk Fill Flowable Restorative be used when injection molding composite?

Yes, along with other 3M Filtek composites (see below), Filtek Bulk Fill Flowable Restorative has been extensively tested and was found both safe and effective for injection molding.



2 Can you warm Filtek Bulk Fill Flowable Restorative?

Filtek Bulk Fill Flowable Restorative can be warmed up to 70°C for one hour up to 25 times in commercially available composite warmer devices.

3 Why are dentists choosing to warm Filtek Bulk Fill Flowable Restorative?

Warmed composites are more fluid, for easier handling. Warming may improve adaptation of Filtek Bulk Fill Flowable Restorative to tooth structure. Warming Filtek Bulk Fill Flowable Restorative lowers the extrusion force by 46-52%.

4 Will warming Filtek Bulk Fill Flowable Restorative affect its properties and performance?

No, warming Filtek Bulk Fill Flowable Restorative does not affect mechanical properties such as diametral tensile strength, flexural strength, depth of cure, flexural modulus and color stability.



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