

Better radiopacity lets you diagnose with confidence.



The radiopacity of a dental restorative material is an important property that allows you to distinguish the restorative material from the dental hard tissue on a radiograph. It's especially important for posterior restorations.

3M™ Filtek™ One Bulk Fill Restorative is designed with unique properties—including high radiopacity—that help you overcome challenges related to posterior restorations.

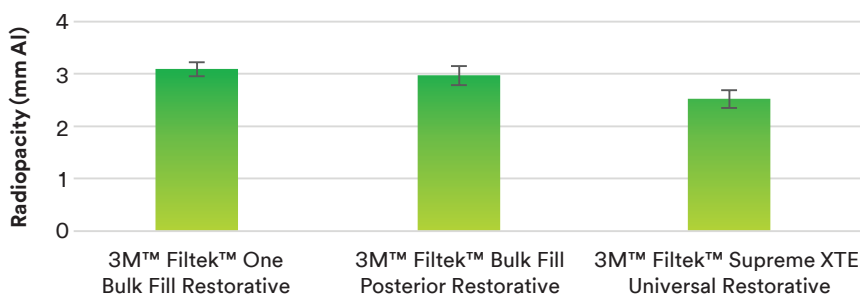
The science behind radiopacity

Filtek One Bulk Fill Restorative and 3M™ Filtek™ Bulk Fill Posterior Restorative contain ytterbium trifluoride (YbF₃) particles for increased radiopacity.



Post-op radiographic image that shows the radiopacity of Filtek One Bulk Fill Restorative. Image courtesy of Dr. Dan Poticzny

Radiopacity Comparison



To determine the radiopacity of a dental restorative material, radiographs are taken of 1mm-thick samples of restorative material and various thicknesses of aluminum, which has equivalent radiopacity to dentin. A material is considered radiopaque if its radiopacity is greater than or equal to the 1mm-thick aluminum. The higher the aluminum thickness equivalence, the higher the radiopacity of the product. The chart shows that 1 mm of 3M™ Filtek™ One Bulk Fill Restorative has the same radiopacity as 3.1 mm of aluminum.

Comparison of radiopacity per ISO 4049:2009. Source 3M Internal Data

**THE DENTAL
ADVISOR**

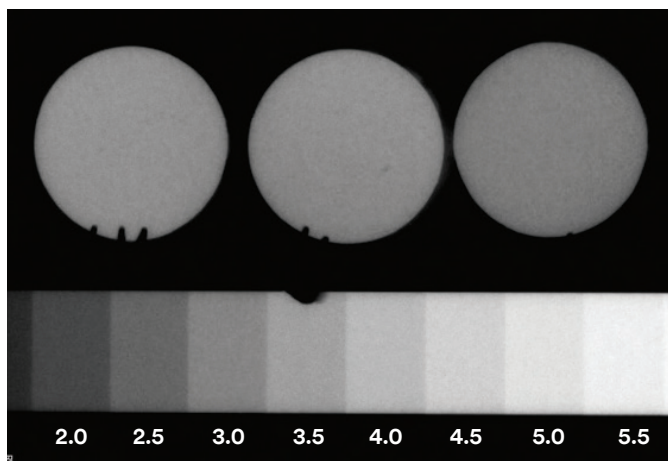
“Filtek One Bulk Fill has excellent radiopacity of 310% equivalence to aluminum.”

Source THE DENTAL ADVISOR

Excellent radiopacity confirmed by *THE DENTAL ADVISOR*[™]

Further testing by *THE DENTAL ADVISOR* Biomaterials Research Center (Ann Arbor, MI) confirmed 3M internal radiopacity test data.

Digital X-rays of three samples (1 cm in diameter x 1 +/- 0.03mm thick discs) of Filtek One Bulk Fill Restorative were taken alongside an aluminum step wedge using a RVG 6200 sensor (Carestream Dental) and Gendex GX-770 X-ray head under the anatomical setting.



Radiograph of 1mm thick specimens next to an aluminum step wedge with 0.5mm steps. The notch is at 3.5 mm of thickness.
Source: THE DENTAL ADVISOR

The images were analyzed with Photoshop using the histogram function to determine gray levels and measure and compare the radiopacity in units of millimeters of aluminum/millimeters of thickness for each material.

Using this methodology, Filtek One Bulk Fill Restorative measured 3.1 (0.1) mm alum/mm composite. *THE DENTAL ADVISOR* concluded that “Filtek One Bulk Fill has excellent radiopacity of 310% equivalence to aluminum.”

Ordering Information

3M[™] Filtek[™] One Bulk Fill Restorative

Refill	Item #	Item #
Shade	Syringe	Capsule
A1	4866A1	4867A1
A2	4866A2	4867A2
A3	4866A3	4867A3
B1	4866B1	4867B1
C2	4866C2	4867C2

SYRINGE SHADE REFILLS include: 1 – 4g syringe; Technique Guide; Instructions for Use.

CAPSULE SHADE REFILLS include: 20 – 0.2g capsules; Technique Guide; Instructions for Use.



www.3M.com



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