3M Science. Applied to Life.™

# 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.

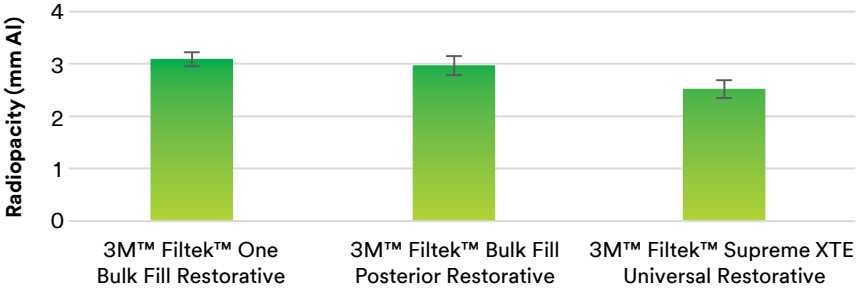
3M™ Filtek™ One Bulk Fill Restorative is designed with unique properties—including high radiopacity—that help you overcome challenges related to posterior restorations.


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

## The science behind radiopacity

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

### 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 aluminium, which has equivalent radiopacity to dentine. A material is considered radiopaque if its radiopacity is greater than or equal to the 1mm-thick aluminium. The higher the aluminium 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 aluminium.

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

THE DENTAL ADVISOR

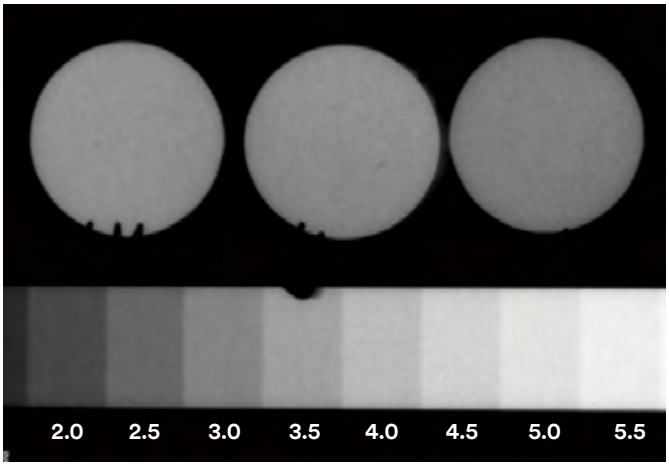
"Filtek One Bulk Fill has excellent radiopacity of 310% equivalence to aluminium."

*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 aluminium 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 aluminium step wedge with 0.5mm steps. The notch is at 3.5 mm of thickness.**
Source: THE DENTAL ADVISOR

The images were analysed with Photoshop using the histogram function to determine gray levels and measure and compare the radiopacity in units of millimeters of aluminium/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 aluminium."


## Ordering Information

**3M™ Filtek™ One Bulk Fill Restorative**

| Refill Shade | Item # Syringe | Item # 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.

For more information, please visit:
**3M.com.au/FiltekOne** or **3M.co.nz/FiltekOne**

**3M Oral Care**

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