



➤ APPLICATION BULLETIN

## PREPERM™ Solutions for Healthcare Technology

The dielectric constant (Dk) of the human body is high. Therefore, imaging devices need to be adaptive in high Dk. With PREPERM™ thermoplastics, you can easily produce complex and large high-precision parts that have tight tolerances in material characteristics.

- Low dielectric losses enable accurate imaging
- Good temperature resistance and minimal water absorption
- Non-brittle material and chipping resistance
- Batch-to batch-stability
- Allows large size and complex designs
- Size reduction of components, thanks to high Dk

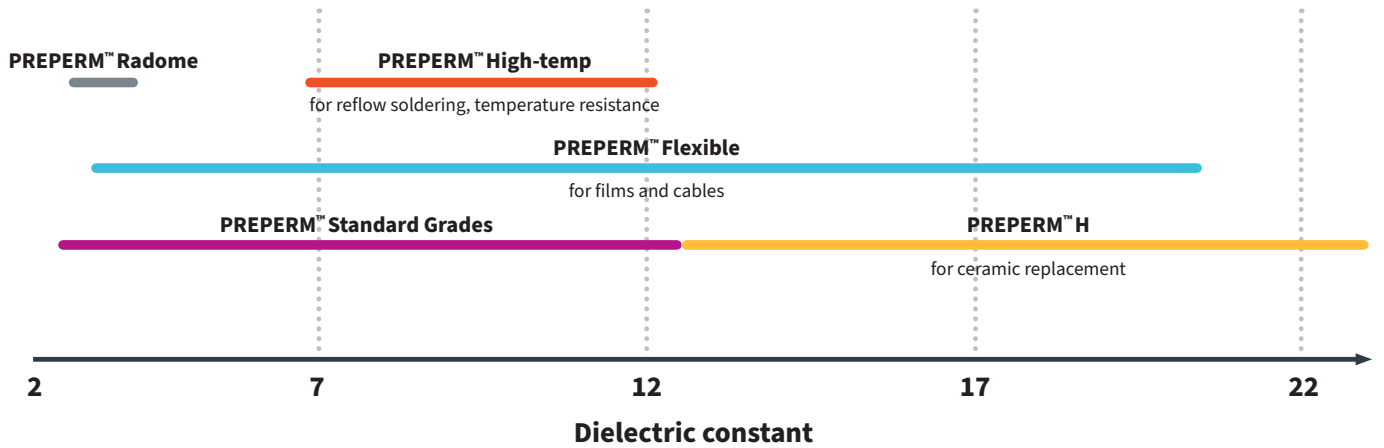


PREPERM materials are a perfect fit in imaging lenses or as a radome (protecting cover) or as a combination of these two.



# PREPERM DIELECTRIC MATERIAL FAMILY

## Optimized material properties for each RF application



### GAME-CHANGING PREPERM SOLUTIONS

#### Tissue-mimicking phantom materials

PREPERM material permittivity can be adapted to the Dk of the human body at various frequencies. Materials can be used as tissue-mimicking phantom materials for calibration of various mmWave and microwave frequency-based imaging devices, like computed tomography (CT) devices.

For more information visit [avient.com](http://avient.com).

### PREPERM materials are used in these applications:

- Mechanical phase shifters in base station antennas
- Radiator disks in base station antennas
- Radomes for automotive radars
- Lenses in SatCom devices

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