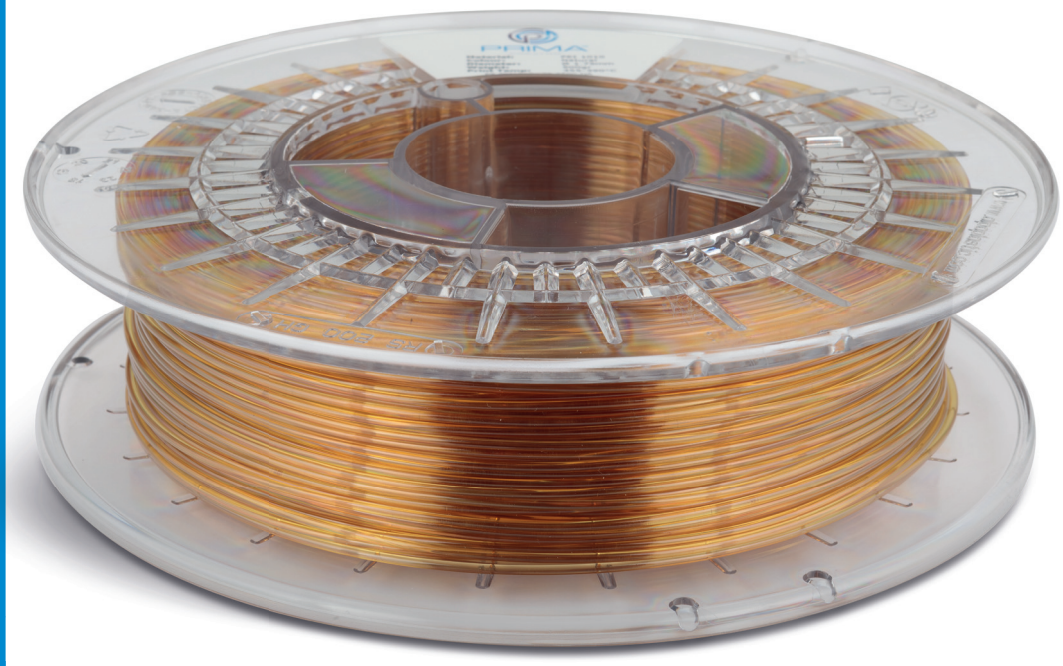
# SELECT™

## PEI ULTEM 1010

### Why should you use Prima SELECT™ PEI ULTEM 1010?

- New formula makes it easy to print*
- One of the strongest filament on the market
- Excellent heat resistance
- Very high chemical resistance
- Can be used for a wide range of applications


*Compared with regular PEI



## SELECT™ PEI ULTEM 1010

**P**oly**e**ther **I**mide (PEI) **Ultem 1010** is an amorphous, amber to transparent thermoplastics with a glass transition temperature (Tg) of 217 ºC and performs in continuous use up to 170 ºC. This inherently flame retardant plastic has UL94 V0 and 5VA ratings. 3D4MAKERS has selected Ultem 1010 for their filament.

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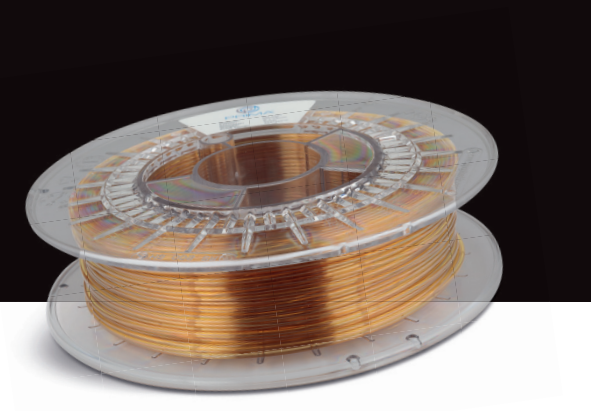
## PEI ULTEM 1010



**The PrimaCreator PEI Filament** has unique properties because it does not come into contact with water during the production process and is directly packaged in a vacuum packaging. These properties make the PrimaCreator PEI Filament particularly suitable for usage in FDM and FFF 3D printers.
The material has an excellent adhesion between layers which results in great improvement of the impact resistance, strength, durability and the printing process.

**To make a successful PEI print there are a few things to keep in mind:**

- The printer must have the performance to meet the PEI filament and it should be printed with a nozzle temperature of 350-380ºC.

- The heat bed should be set to 120-160ºC and a heated chamber is important to have. It´s also very important to make sure that the printer is placed in a room where there´s hardly any draft and temperature fluctuations.

- PEI is best printed on a PEI sheet at a printing speed of 15-30 mm/s.

For further information, check the MSDS.

### Measurements and Tolerance

| Size | Diameter tolerance | Roundness |
|---|---|---|
| 1,75 mm filament | +/- 0,05 mm | 97% |
| 2,85 mm filament | +/- 0,10 mm | 97% |
| Moisture content | < 0,05% | |

### Physical properties

| Description | Value | Test method |
|---|---|---|
| Density | 1,27 g/cm$^3$ | ISO 1183 |

### Mechanical properties

| Description | Value | Test method |
|---|---|---|
| Tensile Stress | 105 Mpa | ISO 527 |
| Flexural Modulus | 3200 Mpa | ISO 527 |
| Impact strenght Notched Izod | 5,0 Kj/m$^2$ | ISO 180 |

### Printer settings

| Description | Value |
|---|---|
| Printer nozzle temperature | 355 - 390ºC |
| Heated bed temperature | 120 - 160ºC |

Reseller:

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