

## Technical data sheet (TPU)

### Thermoplastic Polyurethane Elastomer

#### Description

Thermoplastic elastomer polymer (TPU) is a highly malleable elastomer that prints with high toughness while retaining great flexibility. TPU is more rigid, somewhat more durable, it has a greater resistance to abrasion and the ability to maintain its elasticity at low temperatures.

It is suitable to produce food packaging in accordance with the criteria of Regulation (EU) No. 10/2011 and compatible with EN 1343 models.

#### Material Properties

Density	1.21 g/cm <sup>3</sup> ISO 1183/A
Chemical Name	Thermoplastic Polyurethane

#### Print Settings

Nozzle temperature	190 - 215°C
Bed temperature	0 - 60°C
Active cooling fan	100%

#### Mechanical Properties

Tensile strength	40 MPa	ISO 37
Hardness	93A (Shore A scale)	ISO 868
Tear strength	150 N/m	ISO 34-1
Elongation @ break	500%	ISO 37

#### Filament Specification

Diameter	1.75 mm & 2.85 mm
Tolerance	± 0.08

### Storage & Handling

During storage, the product may acquire humidity if exposed to fresh air. The humidity it absorbs depends on the temperature, humidity, and time of exposure. Therefore, it should be stored in its packaging in a cool place and kept at temperatures below 50°C. No special restrictions on storage with other products.

### Expiration Date (Shelf Life)

If stored correctly and in its original packaging, the product can be used up until 24 months after opening. If the product is stored in a package that has been exposed to humidity during an extended amount of time, it could deteriorate and lose its mechanical and physical properties, even after drying.

### Security

This product is not classified as dangerous according to the CE Regulation No 1272/2008, and therefore is not subject to special transport regulations. This product does not melt at room temperature.

Suitable for food contact	Yes (EU) 10/2011
Suitable for Toys	Yes
Suitable for packaging	Yes

**\*\*Disclaimer:** The product and technical information provided in this datasheet is correct to the best of our knowledge. The information given is provided as a guidance for good use, handling and processing and is not to be considered as a quality specification. The information only relates to the specific product and the material properties.