

## Technical data sheet

**Product name:** Bio-Flex® 3D Clear  
Date of issue: 30 September 2021

Version: 2.0

### Designation of product, preparation and manufacturer

**Trade name:** Bio-Flex® 3D Clear

**Use of product:** Biodegradable polymer compound suitable for the production of 3D printing filaments. The biobased carbon content (BCC) is 90 % (calculated).

**Manufacturer:** FKUR Kunststoff GmbH  
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### Mechanical properties

Modulus of elasticity	3,450	[MPa]	ISO 527
Tensile strength	63	[MPa]	ISO 527
Tensile strain at tensile strength	4	[%]	ISO 527
Tensile stress at break	44	[MPa]	ISO 527
Tensile strain at break	10	[%]	ISO 527

The values listed have been established on standardized test specimens (DIN EN ISO 3167, type A) at standard temperature and humidity conditions.

### Physical properties

Melt flow rate (190 °C/2.16 kg)	10	[g/10 min]	ISO 1133
Melting temperature	> 155	[°C]	ISO 3146-C
Density	1.25	[g/cm³]	ISO 1183

The figures should be regarded as guide values only. Under certain conditions the properties can be influenced to a significant extent by the processing conditions.

## Processing and Handling Information

### General

Bio-Flex® is a biodegradable plastic based on PLA and other biopolymers. Moisture content can lead to hydrolysis. Residual moisture content of more than 0.2 % can result in fish eyes and/or pin holes during processing.

### Drying

We recommend drying Bio-Flex® at 60°C for a period of 2 - 4 hours.

### Storage

If not specified otherwise product life is 6 month after shipment from Sellers warehouse if product is in its original packaging, stored under dry (max. 70% relative humidity) and dark conditions (not exposed to sunlight at a temperature of 5 °C to max. 30°C (ambient temperature)). It is important to observe that a major drop in external air temperature (e.g. during transportation) can result in a development of water condensate. Prior to the processing of the material, it should be ensured that there is no condensate on the packaged product.

Finished products made from Bio-Flex® must be stored dry and cold. It is recommended to wrap goods in black PE liners to protect them against moisture and UV radiation. Storage time depends on processing parameters and of climate conditions in the respective area. Because of these essential and complex interacting parameters, FKUR Kunststoff GmbH cannot give any shelf life guarantees for finished products. Please notice that the conditions mentioned above depend on experience of our customers. Each customer should execute individual storage tests according to product specifications and storage requirements.

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