# TECHNICAL DATA SHEET

## TitanX

**Date of issue:** 16-1-2020 **Date of update:** 23-8-2024

### Product specifications

TitanX is a modified ABS-based 3D printer filament with greatly improved mechanical properties and printability. TitanX is the next generation ABS that 3D prints with high precision and zero warping.
Flammability rating: UL94 HB

### Important key features

>65% more impact resistant than regular ABS
Minimal warping, excellent interlayer adhesion, and seamless build plate adhesion
Precise 3D printing with remarkable fine detail

### Suitable applications

Functional prototyping
Fit testing
Engineering parts

### Recommended pretreatment

| | |
|---|---|
| **Drying** | Recommended |
| | 45 - 60 °C |
| | 12 h |

| | |
|---|---|
| **Print with** | |
| Enclosure | Yes |
| Dry box | No |

### Recommended print settings regular speed

| | |
|---|---|
| Print speed | 60 - 80 mm/s |
| Nozzle temperature | 245 - 270 °C |
| Bed temperature | 100 - 110 °C |
| Fan speed | 0 - 50 % |

| Material properties | Typical value | Unit of Measure | Test method | Test condition |
|---|---|---|---|---|
| Density | | | | |
| Specific gravity | 1,05 | g/cm3 | ASTM D792 | |
| Melt flow rate | 21 | g/10min | ASTM D1238 | 220°C/10kg |
| **Mechanical properties** | | | | |
| Impact strenght | 33 | kgcm/cm | ASTM D256 | Izod notched 23°C |
| Tensile strenght at yield | 460 | kg/cm2 | ASTM D638 | |
| Tensile strenght at break | | | | |
| Tensile modulus | | | | |
| Elongation at yield | | | | |
| Elongation at break | 10 | % | ASTM D638 | |
| Flexural strenght | 740 | kg/cm2 | ASTM D790 | |
| Flexural modulus | 25000 | MPa | ASTM D790 | |
| Rockwell hardness | | | | |
| **Thermal properties** | | | | |
| Melting temperature | | | | |
| Heat deflection temperature | 85 | °C | ASTM D648 | HDT A |
| Vicat softening temperature | 93 | °C | ASTM D1525 | |
| Glass transition temperature | | | | |

### Product export information

| HS code | Description | Origin |
|---|---|---|
| 39169090 | Monofilament for 3D printing | European Union |

### Disclaimer

*The product- and technical data provided in this datasheet is correct to the best of FormFutura BV's knowledge and are intended for reference and comparison purposes only. Actual values may vary according to printing conditions, model complexity, environmental conditions, etcetera. Typical values are indicative only and are not to be construed as being binding specifications. All other information supplied, including that herein, is considered accurate but is furnished upon the express condition that the customer shall make its own assessment to determine a product's suitability for a particular purpose. We make no warranty, express or implied, including regarding any information supplied or the data upon which it is based or the results to be obtained from the use of such products or information, or concerning product, whether of satisfactory quality, merchantability, fitness for any particular purpose or otherwise, or with respect to intellectual property infringement as a result of use of information or products, and none shall be implied.*