



APPLICATIONS

TPU92A OWA filament offers the possibility to readily print flexible objects that require a high mechanical strength.

Although TPU92A OWA is a flexible filament, it is easy to use as this product allows substantial freedom to set up your printer : possibility to print without heated platform, directly on glass, and printable at high speeds.

TPU92A OWA resists to different kind of solvents, especially oils and greases and as it is FDA compliant, it gives you the possibility to print a wide variety of parts.

- ✓ Elastic, Flexible
- ✓ Chemical resistance

HEALTH AND SAFETY

TPU92A OWA filaments are not hazardous for health. Users must wear individual protection equipment (mask, gloves...) in case of sanding or milling.

TPU can lead to COV production during printing process. Ensure a working area equipped with air extraction or suitable protection.

Refer to MSDS prior handling.

- ✓ Food contact compliant
- ✓ Abrasion resistance

CERTIFICATIONS

❖ **Food** : FDA 21 CFR 174,5 | EC 10/2011

FILAMENT PROPERTIES

Properties	Test method	Units	Values
Diameter	INS-6712	mm	1,75 ± 0,1 2,85 ± 0,1
Density	ISO 1183	g/cm ³	1,168
Humidity rate	INS-6711	ppm	< 10 000
MFI (@210°C ; 2,16 kg)	ISO 1133	g/10min	12,0

PRINTED SPECIMENS PROPERTIES

Print parameters and specimens dimensions

Print axis: XY

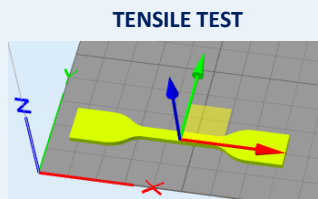
Print speed: 33 mm/s

Infill: 100% - rectilinear

Infill angle: 45°/-45°

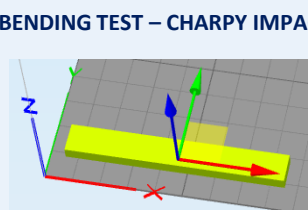
T°Extrusion: 245°C

T°Platform: 85°C



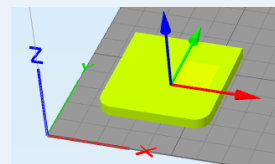
TENSILE TEST

Dimensions (mm) : 75x12,5x2
Specimen type : ISO 527-5A



BENDING TEST – CHARPY IMPACT

Dimensions (mm) : 80x10x4



HARDNESS

Dimensions (mm) : 45x45x4

Properties

Test methods

Units

Values

TENSILE TEST

Tensile modulus

ISO 527

MPa

103

Tensile strength

ISO 527

MPa

38,6

Elongation @ tensile strength

ISO 527

%

355

Tensile stress @ break

ISO 527

MPa

37,7

Tensile elongation @ break

ISO 527

%

355

BENDING TEST

Flexural modulus

ISO 178

MPa

92

Flexural stress @ 3,5%

ISO 178

MPa

3,5

Flexural strength

ISO178

MPa

>5 *

*According to ISO 178, end of the test at 5% deformation even if there is no specimen break

CHARPY IMPACT

Charpy Impact Strength
Notched – type A

ISO 179

kJ/m²

66,6

HARDNESS

Hardness

ISO 868

Shore A

92,0

The results presented are the averaged values of TPU92A OWA 1,75 range.

For each test, 5 specimens per reference, previously placed at least 24 hours in climatic chambers (23 °C - hygrometry: 50%), have been tested.

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