



PRODUCT PORTFOLIO

2019



3D Printer Filament Manufacturer

shop.filamentpm.com
US WAREHOUSE





Filament PM

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About Us

Filament

NEWS

We opened first warehouse in US (June 2019). Now you can order our filaments ther – shop.filamentpm.com

US warehouse benefits:



Shorter delivery time



Cheaper delivery cost



Regular flow of goods



Availability of quality filaments

Plasty Mladeč deals with the production of **Plastic profiles and Filaments** for 3D printing for FFF technology.

The company has started with the production of filament in 2013.

The production of filaments is located in Hanovice, while the production of Plastic profiles for Air-Conditioning system is located in Mladec.

Filaments are known under the name of „**Filament-PM**“ and they are produced in two diameters (1,75 mm and 2,90 mm), you can choose from 13 materials in wide range of colours.

The weight of spool is 1 kg, if we are talking about basic material (like PLA, ABS, PETG) and 0,5 kg, if we are talking about the special one (RUBBERJet, PAJet or CFJet).

Recommended temperature

| Name | | 1,75 mm | 2,90 mm |
|------------------------------------------|----|-----------|-----------|
| ABS NOT DEAD | E: | 230-250°C | 230-250°C |
| | B: | 90-100°C | 90-100°C |
| ABS-T | E: | 230-250°C | 250-280°C |
| | B: | 90-110°C | 90-110°C |
| CFJet PETG with carbon fibers | E: | 220-250°C | - |
| | B: | 60-80°C | - |
| FRJet PETG with flame retarder | E: | 220-250°C | - |
| | B: | 70-90°C | - |
| GlowJet | E: | 200-220°C | - |
| HiPS | E: | 200-230°C | 220-250°C |
| | B: | 90-100°C | 90-100°C |
| MARBLEJet | E: | 200-220°C | - |
| PAJet nylon | E: | 230-240°C | - |
| | B: | 105-110°C | - |
| PC/ABS | E: | 240-260°C | - |
| | B: | 100-110°C | - |
| PETG | E: | 220-250°C | 230-260°C |
| | B: | 60-80°C | 60-80°C |
| PLA | E: | 200-220°C | 210-230°C |
| RubberJET TPE88 | E: | 210-230°C | - |
| | B: | 20-60°C | - |
| RubberJET TPE32 | E: | 220-240°C | - |
| | B: | 20-60°C | - |

Materials for 3D printing

ABS NOT DEAD

(acrylonitrile butadiene styrene)

Package: netto 1 kg (red and blue - 0,5 kg)

Diameter: 1,75 mm / 2,90 mm

Properties of material:

- for printing of smaller objects
- good strong properties
- acetone-soluble polymer



ABS-T (acrylonitrile butadiene styrene)

Package: netto 1 kg

Diameter: 1,75 mm / 2,90 mm

Properties of material:

- for printing of smaller as well as bigger objects
- acetone-soluble polymer
- smaller warping than classic ABS

We recommend to use nozzle 0,4mm and bigger when you print with glitter-fi filaments.

PLA (polylactid acid)

Package: netto 1 kg / netto 2 kg

Diameter: 1,75 mm / 2,90 mm

Properties of material:

- biodegradable material
- good strong properties
- great for printing large objects

We recommend to use nozzle 0,4mm and bigger when you print with glitter-fi filaments.



PETG (polyethylene terephthalate)

Package: netto 1 kg / netto 2 kg

(white and black)

Diameter: 1,75 mm / 2,90 mm

Properties of material:

- good strong properties
- great for printing mechanical parts
- good for printing large objects
- no warping

Materials for 3D printing

HiPS *(high impact polystyrene)*

Package: netto 1 kg

Diameter: 1,75 mm / 2,90 mm

Properties of material:

- supporting material
- lemonen-soluble or acetone-soluble material



PC/ABS *(polycarbonate/ABS)*

Package: netto 1 kg

Diameter: 1,75 mm

Properties of material:

- high impact strength even at low temperatures
- heat resistance
- high stiffness

Materials for 3D printing – Special JET Edition

GlowJet *(PLA with luminiscent pigment)*

Package: netto 0,5 kg
Diameter: 1,75 mm

Properties of material:

- contains fluorescent pigment
- when you light it up, material shines



CFJet *(PETG with carbon fibers)*

Package: netto 0,5 kg
Diameter: 1,75 mm

Properties of material:

- 20 % carbon fibers
- high impact resistance even at low temperatures
- heat resistance
- high stiffness

RubberJet – TPE

(thermoplastic elastomers)

Package: netto 0,5 kg
Diameter: 1,75 mm

Properties of material:

- flexible material
- similar to a rubber
- 2 type of hardness:
 - TPE 88: A – softer
 - TPE32: D – less soft



Materials for 3D printing – Special JET Edition

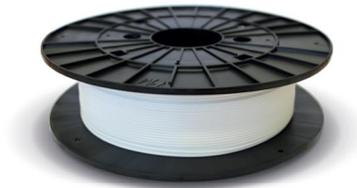
PAJet 160 *(nylon)*

Package: netto 0,5 kg

Diameter: 1,75 mm

Properties of material:

- printing conditions are the same as for ABS
- engineering demanding material
- higher heat resistance
- high toughness
- low surface tension



FRJet *(PETG with flame retarder)*

Package: netto 0,5 kg (white and black)

Diameter: 1,75 mm

Properties of material:

- good strong properties
- great for printing mechanical parts
- contains flame retarder
- material meets the thest UL 94 (classification V0)

Materials for 3D printing – Special JET Edition

RUBBERJet – TPE

Package: netto 0,5 kg
Diameter: 1,75 mm

Flexible filaments are made of Thermoplastic Elastomers (TPE) which are a blend of hard plastic and rubber.

The material is FLEXIBLE, similar to a RUBBER.

2 type of hardness:

TPE 88: A – softer

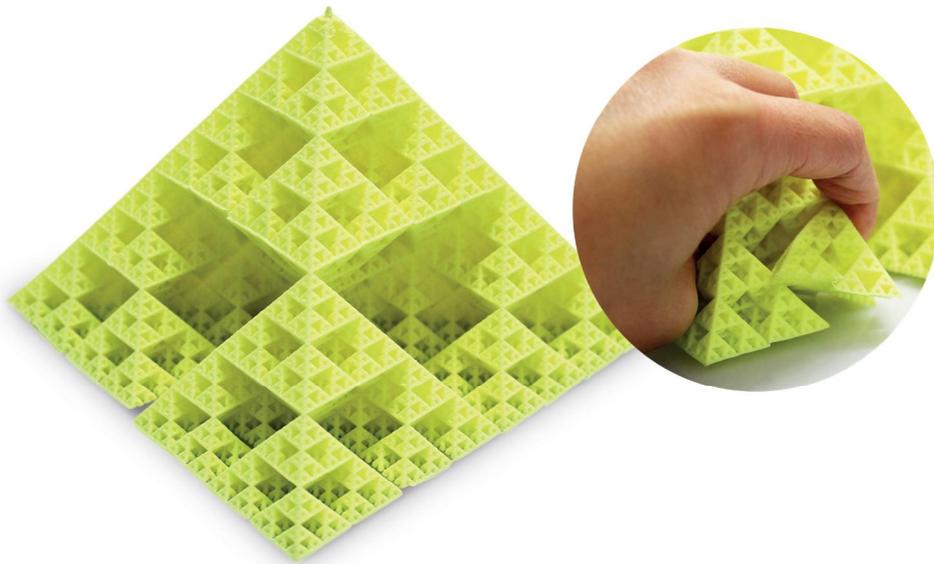
TPE 32: D – less soft



Recommended temperature HB: 20 – 60°C

- ✓ flexible and soft
- ✓ excellent vibration dampening

- ✓ long shelf life
- ✓ good impact resistance



Materials for 3D printing – Special JET Edition

PAJet 160 *(nylon)*

Package: netto 0,5 kg

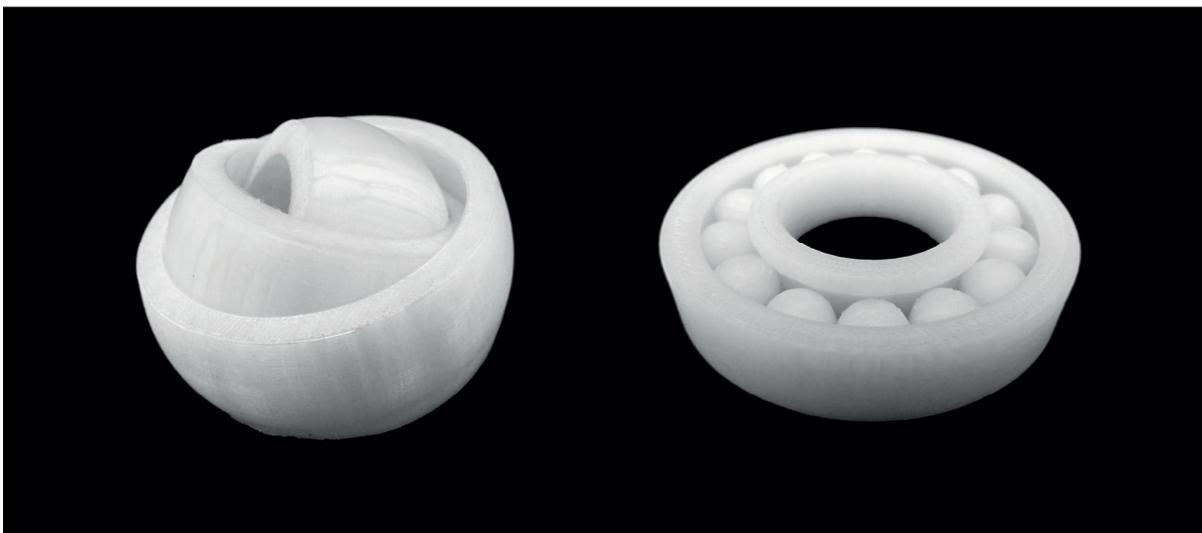
Diameter: 1,75 mm

- engineering demanding material
- higher heat resistance
- high toughness
- low surface tension



Engineering thermoplastic with printing parameters similar to ABS.

- ✓ printing temperature 235 °C
- ✓ printing conditions are the same as for ABS
- ✓ heated Bed Temperature 110 °C
- ✓ speed: 40 mm/s
- ✓ preparation of bed: Kapton Tape, ultem or office paper stucked by glue to heated glass-bed.



Materials for 3D printing – Special JET Edition

CFJet *(PETG with carbon fibers)*

Package: netto 0,5 kg

Diameter: 1,75 mm

This material is characterized by a higher strength and stiffness than conventional PETG and is supplemented with 20% carbon fiber. Thanks to carbon fiber, this material is more rigid and durable.



- ✓ 20 % carbon fibers
- ✓ Heat resistance
- ✓ High impact resistance even at low temperatures
- ✓ High stiffness



Materials for 3D printing – Special JET Edition

FRJet

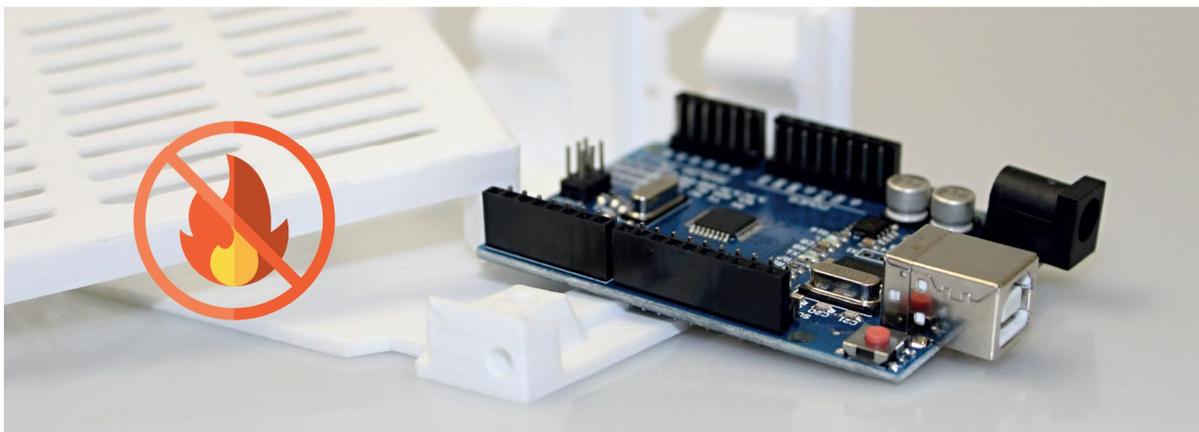
Package: netto 0,5 kg
Diameter: 1,75 mm

Material FRJet, based on PETG, **CONTAINS A MIXTURE OF SPECIAL ADDITIVES WITH FLAME RETARDER.** The material meets **THE TEST UL 94.**

Recommended temperature: HE: 240°C; HB: 85°C



✓ Filament with FLAME RETARDER



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Materials for 3D printing

Design material

MARBLEJet

Material **MARBLEJet**, based on **PLA**, **CONTAINS A MIXTURE OF SPECIAL ADDITIVES** that will make your models have the look of stone/marble.

Dark

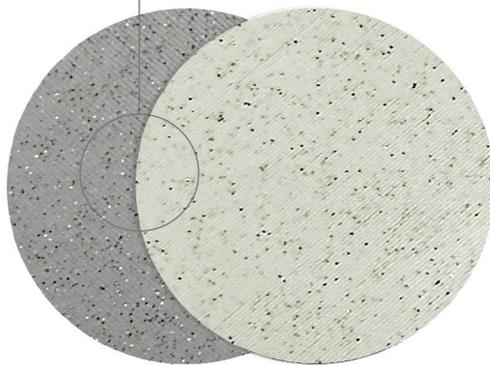
Package: netto 0,5 kg
Diameter: 1,75 mm



Light

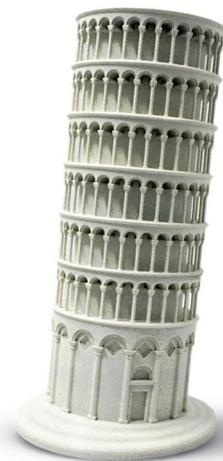
Package: netto 0,5 kg
Diameter: 1,75 mm

models have the look of stone/marble



Dark

Light



Materials for 3D printing

Design material

New colour in PLA

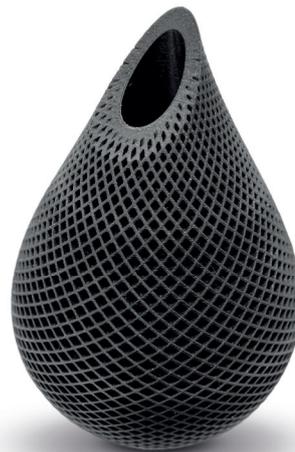
PLA – Graphite black

Package: netto 0,5 kg

Diameter: 1,75 mm

Due to the unpretentious 3D print and interesting visual qualities, PLA is the most popular material. It is also biodegradable and suitable for printing large objects.

Excellent final look
of the printed object



Materials for 3D printing

PEARL EDITION
Design material

PEARL EDITION COLOURS in PLA



Pearl red

Package: netto 1 kg
Diameter: 1,75 mm

Pearl blue

Package: netto 1 kg
Diameter: 1,75 mm



Pearl green

Package: netto 1 kg
Diameter: 1,75 mm



- ✓ high print quality / great for printing large objects
- ✓ easy printing
- ✓ good strong properties

- ✓ biodegradable material
- ✓ design material

New colour in PETG

METAL LOOK

PETG – Froggy gold

Froggy gold

Package: netto 0,5 kg
Diameter: 1,75 mm



Excellent final look of the printed object



It is a solid and tough material that is characterized by good thermal stability. This material, thanks to a small shrinkage during printing, is suitable for printing large objects. PETG has mechanical and thermal properties better than ABS and PLA printing properties.

New colour in PETG

METAL LOOK

PETG – Slate silver

Slate silver

Package: netto 0,5 kg
Diameter: 1,75 mm



Excellent final
look of the printed object

- ✓ good strong properties
- ✓ great for printing mechanical parts

- ✓ good for printing large objects
- ✓ no warping

New colour in PETG

METAL LOOK

PETG – Coffe bronze

Coffe bronze
Package: netto 0,5 kg
Diameter: 1,75 mm



**Excellent final
look of the printed object**

It is a solid and tough material that is characterized by good thermal stability. This material, thanks to a small shrinkage during printing, is suitable for printing large objects. PETG has mechanical and thermal properties better than ABS and PLA printing properties.

New colour in PETG

PETG – dark purple

Dark purple

Package: netto 1 kg
Diameter: 1,75 mm



**Excellent final
look of the printed object**

- ✓ good strong properties
- ✓ great for printing mechanical parts

- ✓ good for printing large objects
- ✓ no warping

Materials for 3D printing

Portfolio colours

PETG *(polyethylene terephthalate)*

Package: netto 1 kg / 2 kg (white and black)
Diameter: 1,75 mm / 2,90 mm



- ✓ good strong properties
- ✓ great for printing mechanical parts
- ✓ good for printing large objects
- ✓ no warping



PLA *(polylactid acid)*

Package: netto 1 kg / netto 2 kg
Diameter: 1,75 mm / 2,90 mm

- ✓ Biodegradable material
- ✓ Good strong properties
- ✓ Great for printing large



Information about package and spools:

Package:

First, spools are put into zip-package with silica drying bag, then put into carton boxes. After that, carton box is heat-sealed in the PE film.

Dimension of spools:

Weight 0,5 kg:

- height: 60 mm
- diameter: 200 mm

Weight 1 kg:

- height: 95 mm
- diameter: 200 mm

We offer also 2 kg spools – \varnothing 1,75 mm in PLA or PETG.

- **Colours in PETG** – white and black.
- **Colours in PLA** - white, pink, copper, blue, silver and black.

Possibility of 2 kg spools – by agreement.



Contact Us

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