

PRODUCT NAME: FILAMENT 3D PETG FR V0 HF

PRODUCT DESCRIPTION: PETG FR V0 HF filament - poly(ethylene terephthalate) with addition of glycol and flame retardant additives – free from halogen, and red phosphorus. Product in the form of a thread, designed for 3D printing using the FFF/FDM method. Filament coiled on spools, vacuum-packed with desiccant in a PET/PE bag, and then in a box.

SECTION 1: Product and Company identification

1.1 Product identification

Product name: FILAMENT 3D PETG FR V0 HF
Trade name: FILAMENT 3D PETG FR V0 HF 1,75mm

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Thermal processing of 3D printing

1.3 Details of the supplier of the safety data sheet

Supplier: **ROSA PLAST Sp. z o.o.**
05-074 Hipolitów, Polska
ul. Hipolitowska 102B
tel: +48 783 62 62

E-mail address contact regarding this safety datasheet: 3d@rosaplast.pl

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The substance is not classified as dangerous according to Regulation (EC) No 1272/2008 (CLP/GHS).

2.2 Label elements

Markings according to EC guidelines: According to the method of calculating the "General Classification Guideline for the Production of the EC" in the latest valid version, the product does not require labeling.

The normal safety measures for handling chemicals should be observed.

2.3 Other hazards

The hazards of this product are associated mainly with its processing. Molten polymer will produce thermal burns. Polymer dust may represent a fire hazard at sufficient concentrations in presence of ignition sources.

SECTION 3: Composition/information on ingredients

PETG (co-polyester)

Flame retardant additive based on organic phosphorus derivatives

SECTION 4: First aid measures

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes
Call a physician immediately

Skin contact: Rinse immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. Cool skin rapidly with water after contact with hot product. Do not peel filament from the skin. Consult a physician

Inhalation: Move to fresh air. Call a physician immediately.

Ingestion: Drink water as a precaution. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Call a physician immediately.

Notes to physician: Treat symptomatically.

SECTION 5: Firefighting measures

Suitable extinguishing media: Foam, water, carbon dioxide (CO₂), dry chemical.

Unsuitable extinguishing media: None .

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus, and full protective gear .

Under fire conditions: Risks of ignition (followed by flame propagation or secondary explosions) shall be prevented by avoiding accumulation of dust, e.g. on floors and ledges.

Decomposition products released in case of fire: Hydrogen cyanide (hydrocyanic acid), Carbon monoxide, Carbon dioxide, Acetaldehyde. In case of fire conditions, the trace amount presence of other harmful substances cannot be excluded. Generating of decomposition and decomposition products depending on fire conditions

SECTION 6: Accidental release measures

Personal precautions: See Section 8. Keep away from sources of ignition. Avoid dust formation. Avoid contact with skin and eyes.

Environmental precautions: Do not flush into surface and ground and ground water or sanitary sewer system.

Methods for cleaning up: Shovel into suitable container for disposal.

SECTION 7: Handling and storage

Safe handling advice: Avoid contact with skin and eyes. Employees should be protected from the possibility of contact with the molten filament during printing. Use personal protective equipment if necessary. In the process of printing, gases and vapors may be generated which may irritate the respiratory system, eyes and skin. It should be processed in a well-ventilated room.

Storage: Store in a cool place. Protect from sunlight. Store in a dry place.

Precautions: No special precautions required.

SECTION 8: Exposure controls/personal protection

Exposure Control:

Engineering measures: Where possible, local exhaust ventilation and good general room ventilation should be used. Provide adequate exhaust ventilation in places of dust formation.

Exposure limits: None established. This material can generate Particulates Not Otherwise Classifiable (PNOC).

General safety and hygiene:

- Keep away from foodstuffs, beverages, and food.
- Do not eat, drink, smoke.
- Do not breathe dust / smoke.
- Avoid contact with eyes and skin.
- Wash hands before breaks and after work.

Breathing equipment:

- It is not required under normal conditions of use. In the case of loose dust / fumes use a breathing apparatus.

Protection of hands:

- To operate a hot product, heat resistant gloves.

Eye protection:

- Protection glasses

Body protection:

- For transport, hot, molten product - heat-resistant protective clothing.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	Thread
Odour:	Slight
Colour	Black
pH:	Not applicable
Boiling Point:	Not available
Flash point:	Not applicable
Evaporation rate:	Not applicable
Flammability:	Non easy flammable
Thermal decomposition:	>250°C
Vapour pressure:	Not available
Vapour density:	Not available
Relative density :	≥1,26 g/cm ³
Solubility(ies):	Insoluble in water at 20°C

SECTION 10: Stability and reactivity

Reactivity: No reactivity for this product or its ingredients, in case of meet storage and handling requirements.

Chemical stability: The product is stable.

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid:

- prolonged exposure of the material to temperatures above the decomposition threshold.
- contamination with other materials that may create harmful gases during processing.
- spread of molten material vapors in the working environment.

Incompatible materials: Avoid contamination with other materials that could produce harmful gases or fumes during processing or chemical reaction.

Hazardous decomposition products: Hydrogen cyanide (hydrocyanic acid), carbon monoxide, carbon dioxide, acetaldehyde.

SECTION 11: Toxicological information

Information on the likely routes of exposure

Inhalation: Combustion products may be irritant; High concentration of dust may be irritant to the respiratory tract.

Ingestion: Expected to be a low ingestion hazard.

Skin contact: May cause physical abrasion in contact with skin. Molten polymer will adhere to the skin causing deep thermal burns.

Eye contact: May cause physical abrasion in contact with eyes.

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tel.: +48 22 783 62 62, www.rosa3d.pl

Information on toxicological effects

Potential acute health effects:

Inhalation:	No known significant effects or critical hazards.
Ingestion:	No known significant effects or critical hazards.
Skin contact:	No known significant effects or critical hazards.
Eye contact:	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No specific data.
Ingestion:	No specific data.
Skin contact:	No specific data.
Eye contact:	No specific data.

Delayed and immediate effects and chronic effects from short and long term exposure

Short term exposure

Potential immediate effects:	Not available.
Potential delayed effects:	Not available.

Long term exposure

Potential immediate effects:	Not available.
Potential delayed effects:	Not available.
General:	No known significant effects or critical hazards.
Carcinogenicity:	No known significant effects or critical hazards.
Mutagenicity:	No known significant effects or critical hazards.
Teratogenicity:	No known significant effects or critical hazards.
Fertility effects:	No known significant effects or critical hazards.

SECTION 12: Ecological information

Toxicity:	Not available.
Persistence and degradability:	Not available.
Bioaccumulative potential:	Not available.
Mobility in soil:	Not available.
Soil/water partition coefficient (KOC):	Insoluble in water
Mobility:	Not available.

Results of PBT and vPvB assessment

PBT: Not available.

vPvB: Not available.

Other adverse effects No known significant effects or critical hazards.

SECTION 13: Disposal considerations

Waste treatment methods

Product

Methods of disposal: Like most thermoplastics, the product can be recycled. Can be landfilled or incinerated, when in compliance with local regulations. If the Regulations do not provide for recycling, the waste must be disposed of in accordance with applicable local regulations.

Hazardous waste: Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

Packaging

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions: This material and its container must be disposed of in a safe way.

SECTION 14: Transport information

The substance is not subject to transport regulations on hazardous goods included in ADR (road transport), RID (rail transport), IMDG (marine transport) and ICAO/IATA (air transport).

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV

List of Substances of Very High Concern for Authorization: None of the components are listed.

Annex XVII

Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: None of the components are listed.

Chemical Safety Assessment: Not available.

SECTION 16: Other information

The information contained in this safety data sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information provided is only intended as a guide to safe handling, use, processing, storage, transport, disposal and release, and no warranty or quality specification should be taken into account. The information applies only to a specific material and may not be relevant for such material used in combination with other materials or other processes, unless otherwise specified in the text. Although some hazards are described in this document, we cannot guarantee that these are the only hazards that exist.

