

PRODUCT NAME: FILAMENT 3D ROSA-Flex 96A

PRODUCT DESCRIPTION: Filament ROSA-Flex 96A is a thermoplastic polyurethane (TPU) in the form of a thread, designed for 3D printing using FFF/FDM technology. The filament is spooled, vacuum-sealed in a bag with a moisture absorber. Packed in cardboard packaging.

SECTION 1. Product and company identification

1.1. Product identification

Product name: FILAMENT 3D ROSA-Flex 96A
Trade name: FILAMENT 3D ROSA-Flex 96A 1.75mm 0.5kg
Chemical name: Thermoplastic polyurethane

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

Identified uses: Extrusion in FDM 3D printing

1.3. Data on 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 of the person responsible for this safety datasheet: 3d@rosaplast.pl

SECTION 2. Hazard identification

2.1. Classification of a substance or mixture

The product has not been classified as posing a risk in accordance with Regulation(EC) No 1272/2008 (CLP) as amended.

2.2. Labelling elements

The product does not require hazard labelling under Regulation (CE) 1272/2008 (CLP) as amended.

2.3. Other risks

Based on the available data, the product does not contain PBT or vPvB $\geq 0.1\%$.

SECTION 3. Composition/information about ingredients

3.1. Substances

The product does not contain substances classified as hazardous to health and the environment in accordance with the relevant provisions:

Regulation (EU) 1272/2008 (CLP) (with later amendments) in such quantities to require the statement.

SECTION 4. First aid measures

4.1. Description of first aid measures

They are not required. It is necessary to comply with the regulations in occupational hygiene.

4.2. Main acute and delayed symptoms and effects of exposure

There are no known cases of adverse effects on health.

4.3. Indications regarding all immediate medical attention and special treatment of the victim

Information not available.

SECTION 5. Firefighting measures

5.1. Extinguishing agents

RECOMMENDED EXTINGUISHING AGENTS

Ordinary extinguishing agents: carbon dioxide, foam, extinguishing powders and water spray.

NOT RECOMMENDED EXTINGUISHING AGENTS

None.

5.2. Specific hazards associated with a substance or mixture

RISKS ASSOCIATED WITH EXPOSURE TO FIRE

Avoid inhalation of the product in decomposition.

5.3. Information for the fire brigade

GENERAL

Use water jets to prevent decomposition of the product and the emergence of substances potentially harmful to health.

Fire protection equipment should always be used in the set. Collect the extinguishing mixture without draining into the sewer. Dispose of contaminated water and extinguishing residues in accordance with applicable standards.

PROTECTIVE EQUIPMENT

Normal firefighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Unintended release into the environment

6.1. Individual precautions, protective equipment and emergency procedures

In the case of vapors or dust dispersed in the air, use respiratory protection. These points refer to those involved in the emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and materials to prevent the spread of contamination and to remove contamination

Confine using earth or inert material. Collect as much material as possible and eliminate the rest using jets of water. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. References to other sections

Any information on personal protection and waste management is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before using the product, please read any instructions in this safety data sheet. Avoid releasing the product into the environment. During use do not smoke, drink, do not eat.

7.2. Safe storage conditions, including incompatibilities

TPU should be stored in a dry place at room temperature, preferably around 20°C, and in any case not too high or too low temperature, preferably in a ventilated, cool room.

7.3. Specific end use(s)

None.

SECTION 8. Exposure control/personal protective equipment

8.1. Control parameters

None.

8.2. Exposure control

Observe the safety measures necessary to handle chemicals.

Hand protection:

- Not required.

Skin protection:

- Not required.

Eye protection:

- Not required.

Respiratory protection:

- Not required unless otherwise indicated with regard to chemical risk evaluation.

Environmental exposure controls:

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: Thread.

Color: Transparent, slightly yellowish and others depending on the dye used.

Odor: Odorless.

pH: Not available.

Melting/freezing temperature: Not available.

Initial boiling point: Not applicable.

Boiling temperature range: Not available.

Flash point: Not applicable.

Evaporation rate: Not available.

Flammability (solid, gas): Not available.

Lower inflammability limit: Not available.

Upper inflammability limit: Not available.

Lower explosive limit: Not available.

Upper explosive limit: Not available.

Vapor pressure: Not available.

Vapor density: Not available.

Relative density: 1.23 g/cm³ at 23°C

Solubility: Not available.

Partition coefficient (n-octanol/water): Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: Not available.

Explosive properties: Not available.

Oxidising properties: Not available.

9.2. Other information

None

SECTION 10. Stability and reactivity

10.1. Reactivity

Under the recommended conditions of use, there are no specific hazards for reactions with other substances.

10.2. Chemical stability

Stable under recommended conditions of use and storage.

10.3. Possibility of dangerous reactions

No hazardous reactions are foreseeable under the recommended conditions of use and storage.

10.4. Conditions to avoid

None. However, follow the safety rules for chemicals in the world.

10.5. Non-compliant material

None

10.6. Hazardous decomposition products

None

SECTION 11. Toxicological information

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information:

Not available.

Information on likely routes of exposure:

Not available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Not available.

Interactive effects Information:

Not available.

Acute toxicity:

Does not meet the classification criteria for this hazard class.

Skin corrosion / irritation:

Does not meet the classification criteria for this hazard class.

Serious eye damage / irritation:

Does not meet the classification criteria for this hazard class.

Respiratory or skin sensitization:

Does not meet the classification criteria for this hazard class.

Germ cell mutagenicity:

Does not meet the classification criteria for this hazard class.

Carcinogenicity:

Does not meet the classification criteria for this hazard class.

Reproductive toxicity:

Does not meet the classification criteria for this hazard class.

Stot - single exposure:

Does not meet the classification criteria for this hazard class.

Stot - repeated exposure:

Does not meet the classification criteria for this hazard class.

Aspiration hazard:

Does not meet the classification criteria for this hazard class.

SECTION 12. Ecological information

When using, observe the principles of good industrial practice, avoiding releasing into the environment. In the event of the product entering water courses or in the event of soil contamination or vegetation, notify the relevant services.

12.1. Toxicity

None.

12.2. Durability and decomposition capacity

None.

12.3. Bioaccumulation capacity

None.

12.4. Mobility in soil

None.

12.5. Results of PBT and vPvB evaluation

Based on the available data, the product does not contain PBT or vPvB $\geq 0.1\%$.

12.6. Other adverse effects

None.

SECTION 13. Waste management

13.1. Methods of disposal of waste

Reuse, when possible. Neat product residues should be considered special non-hazardous waste. Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations. Solid residues may be suitable for disposal in an authorised landfill site.

Contaminated packaging:

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations. With application of the current provisions on waste in Europe, if the product is to be treated as refused, we recommend the application of the CER code 07 02 13 - Plastic waste.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association.

14.1. UN number

Not applicable.

14.2. Valid UN shipping name

Not applicable.

14.3. Hazard class(es) in transport

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental risks

Not applicable.

14.6. Special precautions for users

Not applicable.

14.7. Bulk transport in accordance with Annex II to MARPOL73/78 and the IBC Code

Information not relevant.

SECTION 15. Regulatory information

15.1. Safety, health and environmental legislation specific for the substance or mixture

Category Seveso - Directive 2012/18/EC: None

Restrictions on the product or substances contained in accordance with Annex XVII of Regulation (EC) 1907/2006: None

Candidate List substances (Art. 59 REACH): Based on available data, the product does not contain SVHC \geq 0.1%.

Substances subject to authorisation (Annex XIV REACH): None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012: None

Substances subject to the Rotterdam Convention: None

Substances subject to the Stockholm Convention: None

Medical checks: None

15.2. Chemical safety assessment

A chemical safety assessment of the substance has not yet been carried out/is not yet available for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

EXPLANATIONS OF ABBREVIATIONS:

- CLP: Regulation (EC) No 1272/2008
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- PBT: persistent, bioaccumulative and toxic according to REACH
- REACH: Regulation (EC) No 1907/2006
- vPvB: Very persistent and very bioaccumulating capacity according to REACH

COMMON BIBLIOGRAPHY:

1. Regulation (EC) No 1907/2006 of the European Parliament (REACH)
 2. Regulation (EC) No 1272/2008 of the European Parliament (CLP)
 3. Regulation (EU) 790/2009 of the European Parliament (I Atp. CLP)
 4. Regulation (EU) 2015/830 of the European Parliament
 5. Regulation (EU) 286/2011 of the European Parliament (II Atp. CLP)
 6. Regulation (EU) 618/2012 of the European Parliament (III Atp. CLP)
 7. Regulation (EU) 487/2013 of the European Parliament (IV Atp. CLP)
 8. Regulation (EU) 944/2013 of the European Parliament (V Atp. CLP)
 9. Regulation (EU) 605/2014 of the European Parliament (VI Atp. CLP)
 10. Regulation (EU) 2015/1221 of the European Parliament (VII Atp. CLP)
 11. Regulation (EU) 2016/918 of the European Parliament (VIII Atp. CLP)
 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
 13. Regulation (EU) 2017/776 (X Atp. CLP)
 14. Regulation (EU) 2018/669 (XI Atp. CLP)
 15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
 16. Regulation (EU) 2019/521 (XII Atp. CLP)
- The Merck Index. - 10th Edition
 - Chemical Handling Safety
 - INRS - Fiche Toxicologique (toxicological sheet)
 - Patty - Industrial Hygiene and Toxicology
 - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
 - IFA GESTIS Web page

- ECHA Agency Website
- Database of SDS models for chemical agents- Ministry of Health and ISS (Istituto Superiore di Sanita)
- Italy

Note for users:

The information contained in this data sheet is based on the knowledge we have at the date of issue of the last version. The user should check that the information provided is correct and comprehensive in relation to the specific use of the product. This document must not be used to guarantee any specific product properties. As the manufacturer cannot directly control the use of the product, the user is obliged to comply with the hygiene and safety law and regulations. The manufacturer does not take any responsibility for the use of the product.

