



SAFETY DATA SHEET

FLEX HARD PRO

Date of issue: 06.10.2026 | Supersedes edition of 26.08.2026 | Prepared in accordance with Regulation (EU) 2020/878 amending Annex II of Regulation (EC) No. 1907/2006 (REACH)

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER	Trade name: Extrudr FLEX Hard Pro
1.2 RELEVANT IDENTIFIED USES / USES ADVISED AGAINST	Compound based on thermoplastic polyurethane (TPU), for the production of 3D printing filament. Uses advised against: the manufacturer has not assessed any use other than as a 3D printing filament.
1.3 SUPPLIER OF THE SAFETY DATA SHEET	Extrudr FD3D GmbH Glaserweg 24, 6890 Lustenau, Austria info@extrudr.com
1.4 EMERGENCY TELEPHONE NUMBER	Extrudr FD3D GmbH: +43 5577 21333 Available: Monday–Friday, 08:30–11:30 (CET). Closed Saturday, Sunday and outside these hours. For life-threatening emergencies, or when the above line is unavailable, contact the European single emergency number 112 (available 24/7 in all EU Member States).

2. HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUB- STANCE OR MIXTURE	No classification is required for this product according to the criteria of Regulation (EC) No. 1272/2008 (CLP).
2.2 LABEL ELEMENTS	In accordance with Regulation (EC) No. 1272/2008 (CLP), this product does not require a hazard warning label under GHS criteria.
2.3 OTHER HAZARDS	No particular hazards are known when the instructions for storage and handling are followed. Hot or molten polymer can cause burns. Avoid generating dust, as it may slightly irritate the eyes, skin and respiratory tract. Hazardous fumes may be released in case of fire. Overheating above the processing temperature can release isocyanates, which may cause sensitisation of the skin and respiratory tract.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 MIXTURES	Compound based on thermoplastic polyurethane (TPU), which may contain additives (for example stabilisers and, depending on the colour, colourants). These components are bound in the polymer matrix and are not released under normal use. No substances classified as hazardous under Regulation (EC) No. 1272/2008 (CLP) are present at concentrations that would require them to be listed in this section.
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4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES	Skin contact: in case of contact with molten product, cool the area immediately with cold water. Do not peel solidified material off the skin. Burns caused by molten product must be treated by a doctor. After contact with the cold product, wash thoroughly with soap and water. Inhalation: after inhalation of thermal decomposition products or dust, move the person to fresh air and keep them at rest. Contact a doctor if discomfort occurs. Ingestion: rinse mouth and drink plenty of water. Contact a doctor if discomfort occurs. Eye contact: rinse immediately and thoroughly with plenty of water. If irritation develops, contact a doctor.
4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED	No particular reaction of the human body to this product is known to date. Improper processing carries a risk of burns from the molten product; under normal use, no other particular hazard is expected.
4.3 IMMEDIATE MEDICAL ATTENTION / SPECIAL TREATMENT	Continue first aid measures. Depending on the symptoms, monitor the person and treat symptomatically. No specific antidote is known.

5. FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA	Suitable extinguishing media: water spray, foam, dry powder, carbon dioxide. Unsuitable extinguishing media: full water jet.
5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE	In case of fire, carbon monoxide, carbon dioxide, nitrogen oxides, isocyanates and small amounts of hydrogen cyanide may be released. Molten material kept hot may ignite by itself. Dust deposits may be flammable.
5.3 ADVICE FOR FIREFIGHTERS	Wear self-contained breathing apparatus. The level of hazard depends on the burning materials and the fire conditions. Dispose of fire residues and contaminated extinguishing water in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, EMERGENCY PROCEDURES	Remove all sources of ignition. Avoid contact with skin and eyes and inhalation of dust. If necessary, wear a dust mask and safety glasses. Spilled product can make floors slippery.
6.2 ENVIRONMENTAL PRECAUTIONS	Do not allow the product to enter drains or the environment.
6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP	Sweep or vacuum up spilled product and place it in a suitable container for disposal. Avoid raising dust and ensure adequate ventilation.
6.4 REFERENCE TO OTHER SECTIONS	See Section 8 for personal protective equipment; see Section 13 for disposal.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING	Ensure adequate extraction or ventilation at the printer or processing machine. Avoid contact with molten polymer. Avoid the formation and deposition of dust and electrostatic charge. Do not eat or drink during handling.
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7.2 CONDITIONS FOR SAFE STORAGE, INCOMPATIBILITIES

Follow the general rules of fire prevention. Where dust occurs, take measures against electrostatic charge and keep sources of ignition (heat, sparks, open flames) away. Store in a cool, dry place in tightly closed packaging when not in use. Protect from moisture, heat and UV radiation. Avoid contamination with foreign substances and do not store together with hazardous substances. The material absorbs moisture from the air. Store it dry and, if needed, dry it before printing as described in the technical data sheet.

7.3 SPECIFIC END USE(S)

3D printing filament (additive manufacturing). Follow the instructions given in this section.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

The product does not contain relevant quantities of substances with occupational exposure limit values.

8.2 EXPOSURE CONTROLS

Technical measures: ensure adequate ventilation or extraction during hot processing. Avoid electrostatic charge by using grounding cables.
Eye/face protection: safety glasses with side shields (e.g. EN 166).
Hand protection: heat-protective gloves (EN 407), e.g. made of textile or leather, when handling molten product.
Body protection: choose protective clothing according to the activity and possible exposure.
Respiratory protection: if dust is generated, wear a particle-filter mask, filter class P1.
Hygiene: avoid skin contact with molten product and inhalation of dust, mists and fumes. Wash hands and face before breaks and at the end of work. Do not eat, drink or smoke while working.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE / FORM

Solid, filament

COLOUR

Depending on the colour variant

ODOUR

No information available

MELTING RANGE

200 – 240 °C

FLAMMABILITY

Not self-igniting; combustible

DENSITY

1.22 g/cm³

SOLUBILITY IN WATER [20 °C]

Insoluble

PH, FLASH POINT, VAPOUR PRESSURE, ETC.

Not available / not applicable to the solid form

9.2 OTHER INFORMATION

No other relevant information available.

10. STABILITY AND REACTIVITY

10.1 REACTIVITY

No reactions when the instructions for storage and handling are followed.



10.2 CHEMICAL STABILITY	The product is stable when the instructions for storage and handling are followed.
10.3 POSSIBILITY OF HAZARDOUS REACTIONS	No hazardous reactions known when the instructions for storage and handling are followed.
10.4 CONDITIONS TO AVOID	Avoid extreme heat and all sources of ignition (heat, sparks, open flames). Protect from moisture. Do not steam-sterilise printed parts, as methylene dianiline can form.
10.5 INCOMPATIBLE MATERIALS	Reactive chemicals (strong acids, bases and oxidising agents).
10.6 HAZARDOUS DECOMPOSITION PRODUCTS	Overheating and fire can release carbon monoxide, carbon dioxide, nitrogen oxides, isocyanates and small amounts of hydrogen cyanide.

11. TOXICOLOGICAL INFORMATION

11.1 HAZARD CLASSES PER REGULATION (EC) NO. 1272/2008	The product is not subject to classification or labelling under Regulation (EC) No. 1272/2008. No short-term or long-term toxicological effects are known. Acute toxicity, germ cell mutagenicity, reproductive toxicity, specific target organ toxicity (single or repeated exposure), aspiration hazard: no effects known. Skin corrosion/irritation, serious eye damage/eye irritation, respiratory or skin sensitisation: no effects known. Dust may, however, slightly irritate the eyes, skin and respiratory tract; avoid generating it.
11.2 INFORMATION ON OTHER HAZARDS	Endocrine-disrupting properties: no effects known. Other information: none.

12. ECOLOGICAL INFORMATION

12.1 TOXICITY	No ecotoxic effects known. The product is insoluble in water, so it is not expected to be hazardous to aquatic organisms.
12.2 PERSISTENCE AND DEGRADABILITY	No data available. The product is not expected to be readily biodegradable.
12.3 BIOACCUMULATIVE POTENTIAL	Bioaccumulation is not expected, given the solid form of the product and its insolubility in water.
12.4 MOBILITY IN SOIL	No information available; the product is a water-insoluble solid in its marketed form (filament).
12.5 PBT AND VPvB ASSESSMENT	No PBT/vPvB assessment has been carried out. The product does not contain any substance of very high concern (SVHC) from the Candidate List at a concentration above 0.1 % (see Section 15).
12.6 ENDOCRINE-DISRUPTING PROPERTIES	No known endocrine-disrupting properties for the environment (see also 11.2).
12.7 OTHER ADVERSE EFFECTS	No adverse effects known.



13. DISPOSAL CONSIDERATIONS

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| 13.1 WASTE TREATMENT METHODS | Keep waste to a minimum. Material recycling or incineration are the most suitable disposal routes. Follow the applicable national and local regulations. |
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14. TRANSPORT INFORMATION

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| GENERAL | The product is not dangerous goods within the meaning of the ADR, RID, ADN, IMDG and ICAO/IATA transport regulations. |
| 14.1 – 14.6 | Not applicable: the product is not classified as dangerous goods for transport. |
| 14.7 MARITIME TRANSPORT IN BULK | Not applicable. |

15. REGULATORY INFORMATION

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| 15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS | <p>Regulation (EC) No. 1907/2006 (REACH) and subsequent amendments, including Regulation (EU) 2020/878, amending Annex II of REACH on the requirements for the compilation of safety data sheets. Regulation (EC) No. 1272/2008 (CLP) and subsequent adaptations to technical and scientific progress (ATPs).</p> <p>The product does not contain any substance of very high concern (SVHC) from the ECHA Candidate List (Article 59(10) REACH) at a concentration above 0.1 %. It contains no substance subject to authorisation (REACH Annex XIV), and no substance restricted under REACH Annex XVII is used.</p> <p>Unique Formula Identifier (UFI): not required for this product, as it is not classified as hazardous under Regulation (EC) No. 1272/2008 (CLP) and is therefore not subject to the notification obligation under Annex VIII CLP (Regulation (EU) 2017/542).</p> |
| 15.2 CHEMICAL SAFETY ASSESSMENT | No chemical safety assessment has been carried out for this product. It is not required, as the product is not classified as hazardous. |

16. OTHER INFORMATION

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| GENERAL | <p>This data sheet was prepared on 06.10.2026 in accordance with Regulation (EU) 2020/878. It fully supersedes the previous edition dated 26.08.2026.</p> <p>This data is based on the current state of Extrudr FD3D GmbH's knowledge and experience. This safety data sheet describes the product with respect to safety requirements and does not constitute a warranty of product properties. It is the responsibility of the recipient to observe applicable legal regulations for the use of this product.</p> |
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