



MATERIAL SAFETY DATA SHEET

DuraPro ABS

1. PRODUCT IDENTIFICATION

TRADE NAME	Extrudr DuraPro ABS
MANUFACTURER	FD3D GmbH Klosterstrasse 13 6923 Lauterach AUSTRIA info@extrudr.com
USE OF PRODUCT	Acrylonitrile-Butadiene-Styrene Co-polymer, suitable for 3D printing filament

2. HAZARD IDENTIFICATION

CLASSIFICATION	Not applicable
LABEL ELEMENTS	Not applicable
SPECIAL ADVICE ON HAZARDS	Danger of burns in contact with hot polymer. Hazardous vapours in case of burning.

3. COMPOSITION

CHEMICAL CHARACTERISTICS	Acrylonitrile-Butadiene-Styrene
ADDITIONAL INFORMATION	typical stabilizers and lubricants

4. FIRST-AID MEASURES

ON SKIN CONTACT	In case of contact with molten polymer immediately cool the skin with cold water. Medical aid may be required to remove adhering material and for treatment of burns.
AFTER INHALATION	Dust may cause irritation to respiratory. In case of inhaling fumes released from heated material may cause respiratory irritation. In case of inhaling dense smoke, immediately remove a person to fresh air. If necessary, apply artificial respiration and seek medical attention immediately
ON INGESTION	No effects known. Rinse mouth with water and drink more water. Contact a doctor in case of discomfort.
ON EYES CONTACT	Solid or dust may cause irritation or corneal injury due to mechanical action. Immediately flush eyes with plenty of water for at least 15minutes and call a doctor.

5. FIRE-FIGHT MEASURES

FIRE EXTINGUISHING MEDIA	Water, dry chemical extinguisher, foam, carbon dioxide.
SPECIAL EXPOSURE HAZARDS	During incomplete combustion release of carbon dioxide, carbon monoxide, hydrogen cyanide and a variety of chemical substances
SPECIAL PROTECTIVE EQUIPMENT	Self-contained breathing apparatus.
REMARK	Accumulations of dust can be inflammable.

6. ACCIDENTIAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Use suitable protective clothing. Avoid eye contact and inhalation of dusts. Keep ignition sources away. Pellets or beads may present a slipping hazard.
METHODS FOR CLEANING	Sweep up material and place in a container. Avoid ingress of material into drainage systems. Avoid raising dust and ensure adequate ventilation.

7. HANDLING AND STORAGE

HANDLING	Avoid contact with molten polymer. Avoid generation of dust and electrostatic charge.
STORAGE	Protect against moisture and UV radiation. Store cool and keep packaging closed when not in use. Avoid sources of ignition.

8. PERSONAL PROTECTION

TECHNICAL SAFETY MEASURES	With suitable ventilation the threshold limits assumably will not be reached. Avoid electrostatic charge by use of grounding cables.
PERSONAL SAFETY EQUIPMENT	Use adequate safety equipment, e.g. protective clothing, eye protection glasses, heat protection gloves. In case of dust formation wear mask with particle filter.
WORK HYGIENE	No eating or drinking during working. Avoid contact of hotmaterial with the skin. Avoid breathing dust and vapours.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM	Filament
COLOR	colored
MELTING RANGE	180-200°C
OXIDISING PROPERTIES	not self igniting / flammable
DENSITY	1.05g/cm ³

10. STABILITY AND REACTIVITY

STABILITY	The product is stable at recommended storage conditions.
SUBSTANCES TO BE AVOIDED	Strong oxidizing agents.
CONDITIONS TO BE AVOIDED	Accumulation of electrostatic charges, heating, flames and hot surfaces. Avoid contact with incompatible materials/substances.
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon monoxide, carbon dioxide, aldehydes, acetic acid, tetrahydrofurane, low molecular weight oligomers.

11. TOXICOLOGICAL INFORMATION

LOCAL IRRITATION	Dust can cause irritation of eyes, respiratory organs and skin. After ingestion stomach pain or nausea are possible.
OTHER REMARKS	Based on our state of knowledge and experience no injurious health effects are expected if product is properly handled for the designated use.

12. ECOLOGICAL INFORMATION

ECOTOXICAL EFFECTS	Not Expected to be acutely toxic, but pellets, if ingested by waterflow or aquatic life, may mechanically cause adverse effects.
BIOLOGICAL DEGRADATION	This water insoluble polymeric solid is expected to be inert in the environment. Surface degradation is expected with exposure to sunlight. No appreciable biodegradation is expected.
BIOACCUMULATION	No bioconcentration is expected because of the high molecular weight (MW>1000). In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material will sink and remain in the sediment.

13. DISPOSAL CONSIDERATIONS

PRODUCT	Generation of waste should be minimised, check possibility for recycling. Waste product can be incinerated or dumped together with domestic waste in compliance with local authority requirements.
SPECIAL PRECAUTIONS	Do not dump into any sewers, on the ground, or into any body of water. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations.

14. TRANSPORT INFORMATION

TRANSPORT REGULATIONS	Not classified as hazardous under transport regulations ADR, ADNR, RID, ICAO/IATA, IMDG/GGVSee.
SPECIAL PRECAUTIONS FOR USER RELATED TRANSPORT OR TRANSPORTATION MEASURES	Local transport follows in accordance with Dangerous goods Safety Management Law. Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements. EmS FIRE SCHEDULE : Not available EmS SPILLAGE SCHEDULE : Not available

15. REGULATORY INFORMATION

EU REGULATIONS	This product does not require a hazard warning label in accordance with EC Directives.
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16. OTHER INFORMATION

The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.

This Safety Data Sheet was compiled with data and information from the following sources:
KOSHA, NITE, ESIS, NLM, SIDS, IPCS