extructe ADDITIONAL INFORMATION SHEET

DISCLAIMER

Our products are manufactured with the highest quality resources as a base for our filament. These come with different certifications, that validate certain standards.

To ensure that a specific material is compliant with a certification, both the material and color need to be considered, as well as the printer and other external factors. The compliance of the final product has to be determined on a case-bycase basis. Extrudr cannot guarantee compliance for the final product.

NEED HELP?

If you have any question about the product and/or you are experiencing an issue, please contact us via support@extrudr.com



1. COLORS AND FDA

| T. GOLGIKO TIND TEN | BioFusion | DuraPro ABS | DuraPro ASA | DuraPro ASA CF | Flax | GreenTEC | GreenTEC Pro | GreenTEC Pro Carbon | Pearl | PCTG | PETG | XPETG Matt | XPETG CF | PLA NX1 | PLA NX2 | TPU Flex Hard | TPU Flex Medium | TPU Flex Semisoft | Wood |
|---------------------|-----------|--------------|-------------|----------------|------|--------------|--------------|---------------------|-------|--------------|--------------|--------------|----------|--------------|--------------|---------------|-----------------|-------------------|------|
| COLOR | <u></u> | △ | ۵ | ۵ | 正 | ō | Ğ | Ō | ď | | | × | × | | ₫ | | | • | 8 |
| transparent | | , | | | , | , | , | | , | ✓ | ✓ | | | ✓ | | ✓ | ✓ | • | |
| natural | | √ | • | | ✓ | √ | √ | | ✓ | | | | | | | | | | ✓ |
| white | | ✓ | • | | | ✓ | ✓ | | | ✓ | ✓ | \checkmark | | \checkmark | √ | \checkmark | \checkmark | • | |
| arctic white | ✓ | | | | | | | | | | | | | | | | | | |
| yellow | | | • | | | | | | | | ✓ | | | | ✓ | | | | |
| neon yellow | | | • | | | | | | | | • | | | | | | • | | |
| trans. yellow | | | | | | | | | | | • | | | | | | | | |
| gold | | | | | | | | | | | • | | | • | | | | | |
| inca gold | • | | | | | | | | | | | | | | | | | | |
| orange | | | | | | | | | | | \checkmark | | | | \checkmark | | | | |
| neon orange | | | • | | | | | | | | • | | | | | | • | | |
| trans. orange | | | | | | | | | | | • | | | | | | | | |
| copper | | | | | | | | | | | • | | | | | | | | |
| steampunk copper | • | | | | | | | | | | | | | | | | | | |
| red | | \checkmark | • | | | \checkmark | \checkmark | | | \checkmark | \checkmark | \checkmark | | | | | | | |
| cherry red | ✓ | | | | | | | | | | | | | | | | | | |
| neon red | | | | | | | | | | | • | | | | | | | | |
| trans. red | | | | | | | | | | | • | | | | | | | | |
| hellfire red | | | | | | | | | | | \checkmark | | | | √ | | \checkmark | | |
| magenta | | | | | | | | | | | ✓ | | | | | | | | |

- √ FDA compliant
- not FDA compliant

extrude ADDITIONAL INFORMATION SHEET

| COLOR | | BioFusion | DuraPro ABS | DuraPro ASA | DuraPro ASA CF | Flax | GreenTEC | GreenTEC Pro | GreenTEC Pro Carbon | Pearl | PCTG | PETG | XPETG Matt | XPETG CF | PLA NX1 | PLA NX2 | TPU Flex Hard | TPU Flex Medium | TPU Flex Semisoft | Wood |
|----------------|-------|-----------|-------------|-------------|----------------|------|--------------|--------------|---------------------|-------|----------|--------------|--------------|----------|--------------|--------------|---------------|-----------------|-------------------|------|
| purple | | ш | | | | ш. | O | | U | ш | ш | ✓ | ~ | ~ | ш | √ | | | | > |
| epic purple | | / | | | | | | | | | | | | | | | | | | |
| navy blue | | | √ | | | | √ | √ | | | √ | √ | √ | | | √ | | | | |
| trans. blue | | | | | | | | | | | | • | | | | | | | | |
| blue fire | | / | | | | | | | | | | | | | | | | | | |
| cyan | | | | | | | | | | | | √ | | | | | | | | |
| turquoise | | | | | | | | | | | | √ | | | | \checkmark | | | | |
| signal green | | | | | | | | | | | | • | | | | • | | | | |
| emerald green | | | | • | | | | | | | | √ | | | | \checkmark | | | | |
| neon green | | | | • | | | | | | | | • | | | | | | | | |
| trans. green | | | | | | | | | | | | • | | | | | | • | | |
| reptile green | \ | / | | | | | | | | | | | | | | | | | | |
| venom green | ` | / | | | | | | | | | | | | | | | | | | |
| military green | | | | | | | | | | | | ✓ | ✓ | | | | | | | |
| bronze | | | | | | | | | | | | • | | | | | | | | |
| brown | | | | | | | | | | | | | | | | ✓ | | | | ✓ |
| silver | | | • | • | | | • | • | | | • | • | | | | • | | | | |
| quicksilver | Ì | / | | | | | | | | | | | | | | | | | | |
| grey | | | ✓ | • | | | | | | | | \checkmark | | | | \checkmark | | | | |
| metallic | | | • | • | | | | | | | | • | • | | | | | | | |
| metallic grey | \ \ | / | | | | | | | | | | | | | | | | | | |
| anthracite | ٠. | | ✓ | • | | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | |
| black | | | ✓ | • | | | \checkmark | ✓ | | | ✓ | ✓ | \checkmark | | \checkmark | \checkmark | \checkmark | \checkmark | • | |
| jet black | • | / | | | | | | | | | | | | | | | | | | |
| Carbon | | | | | • | | | | • | | | | | • | | | | | | |
| ESD | | | | | | | | | | | | | ✓ | | | | | | | |
| glowEx | | | | | | | | | | | | • | | | | | | | | |

√ FDA compliant

• not FDA compliant

extructe ADDITIONAL INFORMATION SHEET

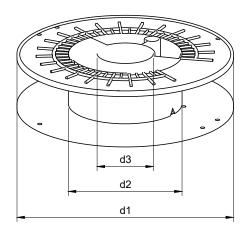
2. SPOOL INFORMATION

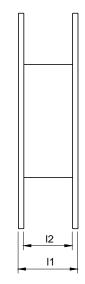
| Spool Type | S | М | L | XL | XXL |
|-------------|-----|-----|-----|-----|------|
| l1 | 55 | 68 | 100 | 100 | 244 |
| l2 | 45 | 59 | 90 | 90 | 220 |
| d1 | 200 | 200 | 300 | 350 | 335 |
| d2 | 105 | 105 | 212 | 180 | 190 |
| d3 | 52 | 52 | 52 | 52 | 51 |
| Net Weight* | 230 | 260 | 600 | 820 | 1020 |

^{*}Deviations of +/- 10 % possible Measurements (I, d) in mm. Net Weight in g.

Spool Types

| 0.75 kg | 0.8 kg |
|---------|------------------------|
| 1 kg | 1.1 kg |
| 2.3 kg | 2.5 kg |
| 5 kg | |
| 10 kg | |
| | 1 kg 2.3 kg 5 kg |





3. CERTIFICATIONS



The raw material and additives used are **FDA** certified. Classification and compliance with the standard is linked to external limitations. According to external limitations, a certification of food approval in accordance with the rules can only be carried out on a case-by-case basis for the respective product.



The EU Directive 2011/65/EU (RoHS 2) serves to restrict the use of certain hazardous substances and specifies their maximum concentrations in materials, such as

- Lead (Pb), 0.1% use e.g. for solder joints
- Mercury (Hg), 0.1% Use e.g. for inclination switches, mercury vapour rectifiers
- Cadmium (Cd), 0.01% Use e.g. for nickel-cadmium batteries
- Hexavalent chromium (Cr6+), 0.1% Use e.g. in paints and varnishes, wood preservatives
- Polybrominated biphenyls (PBB), 0.1% Flame retardant in plastic insulations
- Polybrominated diphenyl ethers (PBDE), 0.1% Flame retardants in plastic insulations
- Bis(2-ethylhexyl) phthalate (DEHP), 0.1% Use e.g. as plasticizer in PVC
- Benzyl butyl phthalate (BBP), 0.1% Use e.g. as plasticizer in plastics
- Dibutylphthalate (DBP), 0.1% Use e.g. as plasticizer in plastics
- Diisobutylphthalate (DIBP), 0.1% Use e.g. as plasticizer in plastics

In a chemical analysis (screening), the test object is subjected to procedures that indicate the concentrations of the elements present (example: X-ray fluorescence analysis). Products that comply with the directives are marked with the CE logo.



REACH is the European Directive 1907/2006 for the registration, evaluation, authorisation and restriction of certain chemical substances. It came into effect in 2007 and replaced the previous system.

The directive shifts the responsibility for providing information on risks and safety information from the authorities to the industry. Thus, companies are required to meet the new requirements and strengthen and secure communication along the production chain.



The product is **biodegradable** according to the DIN EN ISO 14855 guideline. The complete aerobic degradability of the material is determined under controlled composting and examined on the basis of the released carbon dioxide. The compliance of the final product with the guideline needs to be evaluated on a case-by-case basis for the respective product.

extruct ADDITIONAL INFORMATION SHEET



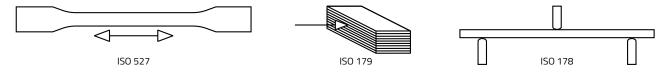
The raw material is **flame-retardant** and is based on the DIN 4102 - UL94 - B1 standard. Classification and compliance with the standard is linked to external limitations. In order to guarantee the flammability of the end product, a certified testing laboratory must test the properties.



The material is capable of withstanding direct UV-impact for a certain time period. The **UV-resistance** of the final product needs to be evaluated on a case-by-case basis for the respective product.

4. TEST VALUES AND TEST SPECIMEN

To determine a specific value for the technical data sheets, standardized test specimen are being used. These are designed and manufactured according to the specific regulation (e.g. ISO 527 oder ISO 179). The test specimen are manufactured through injection moulding and are tested afterwards. The analysis is conducted by an external entity. The values in the technical data sheet are for comparison purposes only and depend on external factors, like temperature, printer and -settings, user experience and others, that have to be checked on a case-by-case basis. The technical properties have to be checked by the user before use. Extrudr assumes no liability for fulfilment of the values in the end product. Product properties are subject to change without prior announcement. In case users want to engineer parts with Extrudr filament and need exact information for calculation, contact the Extrudr Support Team.



5. LIABILITY LIMITATION

Please note that this compound has not been tested for trace amounts of the substances aforementioned or listed within the regulations. However, based on the information obtained from upstream suppliers there is no reason to expect any of the substances listed to be present within this compound. The values listed have been established on standardized test specimens at standard temperature and humidity conditions. The figures should be considered as guide values only. Under certain conditions the processing conditions can have a significant influenceon the properties.

FD3D GmbH shall not be liable for the use of this information or of any product, method or equipment mentioned. Customers must undertake their own determination of this product's suitability and completeness for their own use, for the protection of the environment, for the health and safety of their employees and purchasers of their products. No warranty is made of the merchantability or fitness of any product, and nothing herein waives any of the seller'sconditions of sale.

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