

Addigy[®] FPB 2684 000000 A

Type

Additive manufacturing Polycarbonate blend (PC + ABS) for fused filament fabrication. Diameter: 1.75 mm

Optimized for printability. Smooth surface finish.

Tough and rigid, impact and heat resistant, cold stable until -30 °C, UV stable.

Particularly suitable for outdoor applications e.g. jigs & fixtures in harsh environments.

Specification Property	Specimen	Value	Unit of measurement	Method
Appearance	granulate	natural color		
Density	granulate	1130	kg/m ³	ISO 1183-1
Melt volume rate 300 °C; 1.2 kg	granulate	18	cm ³ / 10 min	ISO 1133
Vicat softening temperature 50 N; 120 °C/h	granulate	120	°C	ISO 306
Heat deflection temperature 0.45 MPa	printed bar	130	°C	ASTM D 648
Heat deflection temperature 1.82 MPa	printed bar	110	°C	ASTM D 648
Young's Modulus xy-direction	printed bar (5A)	1930	MPa	ISO 527-2 (1 mm/min)
Tensile strength xy-direction	printed bar (5A)	47	MPa	ISO 527-2 (200 mm/min)
Elongation at break xy-direction	printed bar (5A)	12	%	ISO 527-2 (200 mm/min)
Volume Resistivity	granulate	10 ¹⁴	Ohm m	IEC 60093

Due to the large variety of machines and part geometries, given process parameters can only serve as an orientation.

Edition

2021-04-16

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Picture of printed part



3DBenchy.com

Benchy scaled by 250 % to 150 mm length.
Printed on a Ultimaker S3.

Printing Characteristics

Optimized Printability

Easy printing material with highest thermal resistance among its class

Smooth surface finish

Printed material displays a smooth surface finish without any post-processing smoothing

Good layer adhesion

Low softening temperature, which leads to good layer adhesion and warping behavior

Recommended Parameters for Printing

Predrying of filaments recommended at temperatures between 80 and 100 °C with drying times between one and three hours to achieve a moisture content of ≤ 0.02 %. During printing, keeping the filament in a filament dryer at 80 °C is recommended.

Speed: 30 - 70 mm/s

Nozzle temperature: 270 - 285 °C, use higher temperatures only at high speeds.

Recommended combination: 35 mm/s at 270 °C

Bed temperature: 120 °C

Determined using a Ultimaker S3 and S5 printer with nozzle diameter: 0.4 mm, layer thickness: 0.3 mm.

For large parts, we recommend a build room temperature of 100 °C or at least using a closed printing chamber.

Printing profile

A printing profile with all recommended settings is available at the Cura marketplace.

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Storage

The product should be stored in its original packaging at all times.

If bags or containers have been opened, they must then be sealed again to ensure proper further storage.

Prolonged exposure of bags or containers containing Addigy[®] filaments or pellets to light or light sources containing UV rays should be avoided. UV radiation will lead to degradation especially, but not limited color changes of the filaments or pellets and subsequently molded parts.

Constant, normal room temperature with minimal fluctuations and low to normal humidity is essential.

It is important to properly dry the filaments and pellets, as directed for the product, prior to processing.

Storage time

Covestro represents that, for a period of twentyfour months following the day of shipment as stated in the respective transport documents, the product will meet the specifications or values set forth in section "specifications or characteristic data" above, whatever is applicable, provided that the product is stored in full compliance with the storage conditions set forth in and referenced under section "storage" above and is otherwise handled appropriately.

The lapse of the twentyfour months period does not necessarily mean that the product no longer meets specifications or the set values. However, prior to using said product, Covestro recommends to test such a product if it still meets the specifications or the set values. Covestro does not make any representation regarding the product after the lapse of the twentyfour months period and Covestro shall not be responsible or liable in any way for the product failing to meet specifications or the set values after the lapse of the twentyfour months period.

Labeling and statutory requirements

This product data sheet is only valid in conjunction with the latest edition of the corresponding Safety Data Sheet. Any updating of safety-relevant information – in accordance with statutory requirements – will only be reflected in the Safety Data Sheet, copies of which will be revised and distributed. Information relating to the current classification and labeling, applications and processing methods and further data relevant to safety can be found in the currently **valid Safety Data Sheet**.

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