Addigy® GPU 79AR8 000000 A UV

Type

Additive manufacturing grade for filament extrusion.

Aromatic ether grade, very good hydrolysis and microbial resistance; good low-temperature flexibility.

Specification

Property	Specimen	Value	Unit of measurement	Method
Appearance	granulate	natural color		
Density	granulate	1060	kg/m^3	ISO 1183-1
Glass transition temperature	granulate	- 68	°C	ISO 6721-1
Shore hardness A	granulate	65 - 79		DIN ISO 7619-1 (1s)
Tensile strength at break xy-direction	printed bar (5A)	approx. 14	MPa	ISO 527-2 (200 mm/min)
Elongation at break xy-direction	printed bar (5A)	approx. 1038	%	ISO 527-2 (200 mm/min)
Tensile strength at break z-direction	printed bar (5A)	approx. 3	MPa	ISO 527-2 (200 mm/min)
Elongation at break z-direction	printed bar (5A)	approx. 190	%	ISO 527-2 (200 mm/min)
Impact strength Izod notched (1A) xz-direction	printed bar	non-break	kJ/m^2	DIN EN ISO 180

Determined with a German RepRap X400 with a Recreus Extruder V3, nozzle diameter: 0.4 mm, layer thickness: 0.2 mm. Due to the large variety of machines and part geometries, given process parameters can only serve as an orientation.

Printing Characteristics

Easy printable

No warping (even without heated chamber)

Good bed adhesion

Good adhesion to other polymeric materials

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Technical Settings for Filament Extrusion	Filament extrusion temperature between 175 and 210 °C. Predrying of granulate recommended at temperatures between 80 and 100 °C with drying times between two and twelve hours to achieve a moisture content of ≤ 0.05 %. Dried, hot granules must not be allowed to cool in the open air. They should be stored in dry, resealable containers. The material hopper on the machine must remain covered at all times.
Recommended Parameters for Printing	Predrying of filaments recommended at temperatures between 80 and 100 °C with drying times between two and twelve hours to achieve a moisture content of ≤ 0.05 %. During printing, keeping the filament in a filament dryer at 80 °C is recommended. Speed: 5 - 20 mm/s Nozzle temperature: 190 - 220 °C Determined with a German repRap X400 with a Recreus Extruder V3, nozzle diameter: 0.4 mm, layer thickness: 0.2 mm. In general it is to recommend, to print with higher speed at higher temperature.
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.

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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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