Datasheet

ABS Extrafill “transparent”

Description:

Fillamentum ABS Extrafill is a material for the FFF (also known as FDM) 3D printing technology.

The advantage of this material is that it can be used in 3D printers easily, that it allows a high quality of printing even in tricky details and an excellent lamination of the printed object.

ABS filament is a polymer which is ideal for the production of the first functional samples before serial production for functional prototyping, manufacturing tools, but also for the production of goods for everyday use.

This material can be used for production of electrical and electronic equipment. It doesn't contain the restricted substances. The use of the material in the food or medical industry is not recommended.

Fillamentum guarantees high precision of filament dimensions within the tolerance of +/- 0,05 mm, which is strictly controlled throughout the production.



Physical properties	Typical Value	Test Method	Test Condition
Material density	1,08 g/cm^3	ISO 1183	23 °C
Melt volume index	3,0 cm^3/10 min	ISO 1133	200 °C, 5 kg
Diameter tolerance	± 0,05 mm		
Weight	750 g of filament (+ 250 g spool)		

Mechanical properties	Typical Value	Test Method	Test Condition
Tensile strength	42 MPa	ISO 527	at yield, 50 mm/min
	33 MPa	ISO 527	at break, 50 mm/min
Elongation at break	40 %	ISO 527	50 mm/min
Flexural strength	57 MPa	ISO 178	2 mm/min
Flexural modulus	1900 MPa	ISO 178	2 mm/min
Izod impact strength	14 kJ/m^2	ISO 180-1A	23 °C, notched
	7 kJ/m^2	ISO 180-1A	-30 °C, notched
Charpy impact strength	14 kJ/m^2	ISO 179	23 °C, notched
	7 kJ/m^2	ISO 179	-30 °C, notched

Thermal properties	Typical Value	Test Method	Test Condition
Heat distortion temperature	77 °C	ISO 75-A	1,8 MPa
Vicat softening temperature	104 °C	ISO 306	50 °C/h, 1 kg
	96 °C	ISO 306	50 °C/h, 5 kg
Coefficient of linear thermal expansion	9,0 × 10^{-5}	ISO 11359	

Printing properties	Typical Value	Test Method	Test Condition
Print temperature	220–240 °C		
Hot pad	80–100 °C		

Workability of 3D printing filament is at least 12 months from delivery.
The information was processed with the best knowledge of the manufacturer and it is for information only.

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