Vinyl 303

Description:

This filament is made of PVC is optimized for the FDM 3D printing technology. Thanks to the large application range of PVC, this filament is ideal for prototyping.

The polymer excels in chemical corrosion resistance, good mechanical properties, high strength and durability. Great tensile strength and excellent hardness are ideal for printing of mechanically resistant objects.

Vinyl 303 may be used for production of electrical and electronic equipment. It doesn't contain the restricted substances. The use for application that come into contact with food is not recommended.

The polymer has high thermal stability to avoid clogging of the nozzle. Although, it may be caused by incorrect temperature of printing. We recommend the 3D printer with air filtration and use of brass nozzle. The parts made of stainless steel may be affected by the corrosion.

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	1,35 g/cm^3	10-LA 022	
Melt flow index	≥ 10 g/10 min		190 °C, 10 kg
Diameter tolerance	± 0,05 mm		
Weight	750 g of filament (+ 250 g spool)		

Mechanical properties	Typical Value	Test Method	Test Condition
Tensile strength	46,1 MPa	10-LA 049	at break
Elongation	13,1 %	10-LA 049	at break
Hardness	78 Shore D	10-LA 031	

Thermal properties	Typical Value	Test Method	Test Condition
Vicat softening temperature	71 °C	ISO 306	50 °C, 5 kg

Printing properties	Recommended	Notes
Print temperature	215–230 °C	Recommended settings! It may differ according to the printer and the object. Try your own optimization before printing.
Hot pad	80 °C	
Bed adhesive	Magigoo, 3Dlac	For easy removing of the object.
Speed of printing	40–60 mm/s	

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.