

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.



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.

| 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. |
| Hot pad | 80 °C | Try your own optimization before printing. |
| Bed adhesive | Magigoo, 3Dlac | For easy removing of the object. |
| Speed of printing | 40-60 mm/s | |