



Technical Data Sheet

Product name: ABS

Version: 1.0

Date: 05.2024

Dimensions

Description	Typical value	Test method
1,75 mm	± 0.02 mm	± 0.02 mm
2,85 mm	± 0,10 mm	± 0,10 mm

MATERIAL PROPERTIES

Description	Typical value	Test method
Density	1.04 g/cm ³	ISO 1183,GB/T 1033
Meltindex (MFR)	16.2 g/10min (250 °C/2.16kg)	ISO 1133,GB/T 3682
Melting temperature	198 °C	DSC,10°C/min
Vicatsoftening temperature	99 °C	ISO306,GB/T1633
Heat deflection temperature	91 °C	ISO 75 0.45MPa
Tensile strength at Yield	31 MPa	ISO 527, GB/T 1040
Elongation at Break	8.1 %	ISO 527, GB/T 1040



Flexural Modulus	2093 MPa	ISO 527, GB/T 9341
Flexural strength	61 MPa	ISO 178, GB/T 9341
Impact strength	17.7 kJ/m ²	ISO 179, GB/T 1043
Layer Adhesion (Impact Strength - Z)	10.5 kJ/m ²	ISO 179, GB/T 1043
Moisture absorption	0.5%	ISO 62 23°C , 50% RH

GUIDELINE FOR PRINT SETTINGS

Description	Typical value
Printing temperature	230 – 270 °C
Build Plate Compatibility	BuildTak®,Glass,BlueTape,PEI
Bed Temperature	95-110°C (Glue Recommended)
Cooling fan	10-20%
Drying Settings	80°C , 8h
Printing speed	<200 mm/s
AMS Compatibility	YES
Raftseparationdistance	0.8-2mm
Retractionspeed	30mm/s
Hotend Compatibility	0.2-0.8mm nozzle,hardened steel,copper.
Environmentaltemperature	45-60°C



Packaging:

All spools are sealed and packed with silica gel to avoid humidity.

Additional info:

The typical values presented in this data sheet are intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Actual values may vary significantly with printing conditions. End- use performance of printed parts depends not only on materials, but also on part design, environmental conditions, printing conditions, etc. Product specifications are subject to change without notice.

Each user is responsible for determining the safety, lawfulness, technical suitability, and disposal/ recycling practices of R3D materials for the intended application. R3D makes no warranty of any kind, unless announced separately, to the fitness for any use or application. R3D shall not be made liable for any damage, injury or loss induced from the use of R3D materials in any application.

Storage: Cool and dry (15-25°C) and away from UV light. This enhances the shelf life significantly.