Technical Data Sheet

BFI3D FLEX 90A Filament

The material has beed developed and adapted to general modeling. Tests have showed that it is feasible to use the offered product in most 3D printers operating in FDM/FFF technology. Before the first use, it is advisable to print out a hard proof to check if the filament is compatible with user's printer. All shown data are typical properties. The information were processed with the best knowledge of the manufacturer and it is for information only. Users should confirm results by their own tests.

Identification	
Chemical name	Thermoplastic Elastomer based on Polyurethane
Use	Additive Manufacturing

Filament specification	
Diameter	1.75mm ± 0.05mm
Verify your spool	Yes

Material properties			
Properties		Typical value	Test method
Density		1.22 g/cm³	DIN 53479
Hardness	Shore A	90	DIN 53505
Abrasion Resistance		35 mm³	DIN 53516
Tensile strength	Machine Direction	35 MPa	DIN 53504
Elongation at Rupture	Machine Direction	500%	DIN 53504
Tear Propagation Strength	Machine Direction	90 N/mm	DIN 53515
Compression Set	72h/23°C	30%	DIN 53515
Compression Set	24h/70°C	80%	DIN 53515
VICAT A50		90°C	N/A
HBT-B	0,45MPa	47°C	N/A

Guidline for print settings*	
Nozzle temperature	200-235°C
Bed temperature	50-70°C
Active cooling fan	Yes (50% as default)
Print speed**	15-50mm/s
Bed adhesive	Magigoo, 3DLac, Dimafix

* settings are based on a 0.5mm nozzle

** the range depends on the geometrical complexity