

TECHNICAL DATA SHEET

FILAFLEX 70A ULTRA-SOFT

Description

Filaflex is a Thermoplastic Polyether-Polyurethane elastomer with additives that allow high printability in FDM printers. Filaflex® has a remarkable hydrolysis resistance, high resistance to bacteria and low temperature flexibility properties in printed parts.

Physical properties	Value	Unit	Test method according to
Material density	1.08	g/cm ³	DIN EN ISO 1183-1-A

Mechanical properties	Value	Unit	Test method according to
Hardness	70	Shore A	DIN ISO 7619-1 (3s)
Tensile strength	32	MPa	DIN 53504-S2
Elongation at break	900	%	DIN 53504-S2
Stress at 20% elongation	1.7	MPa	DIN 53504-S2
Stress at 100% elongation	3.6	MPa	DIN 53504-S2
Stress at 300% elongation	6.6	MPa	DIN 53504-S2
Tear strength	47	N/mm	DIN ISO 34-1Bb
Abrasion loss	46	mm ³	DIN ISO 4649-A
Compression set 23°C / 72 hours	22	%	DIN ISO 815
Compression set 70°C / 24 hours	39	%	DIN ISO 815
Tensile strength after storage in water at 80°C for 42 days	20	MPa	DIN 53504-S2
Elongation at break after storage in water at 80°C for 42 days	900	%	DIN 53504-S2
Notched impact strength (Charpy) at +23°C	nb	kJ/m ²	DIN EN ISO 179-1

Printing properties	Recommended
Printing temperatures	215 - 235°C
Printing speed	20 - 40 mm/s
Hot-bed temperature	0-40°C
Optimal layer height	0.2 mm
Minimal nozzle diameter	0.4 mm or higher
Retraction parameters	3.5 - 6.5 mm (speed 20 - 160 mm/s)