TECHNICAL DATA SHEET

FILAFLEX 95A MEDIUM-FLEX

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	g/cm³	DIN EN ISO 1183-1-A

Mechanical properties	Value	Unit	Test method according to
Hardness	96	Shore A	DIN ISO 7619-1 (3s)
Hardness (approx. ≈)	48	Shore D	DIN ISO 7619-1 (3s)
Tensile strength	55	MPa	DIN 53504-S2
Elongation at break	500	%	DIN 53504-S2
Stress at 20% elongation	6	MPa	DIN 53504-S2
Stress at 100% elongation	10	MPa	DIN 53504-S2
Stress at 300% elongation	18	MPa	DIN 53504-S2
Tear strength	100	N/mm	DIN ISO 34-1Bb
Abrasion loss	25	mm³	DIN ISO 4649-A
Compression set 23°C / 72 hours	30	%	DIN ISO 815
Compression set 70°C / 24 hours	45	%	DIN ISO 815
Tensile strength after storage in water at 80°C for 42 days	37	MPa	DIN 53504-S2
Elongation at break after storage in water at 80°C for 42 days	500	%	DIN 53504-S2
Notched impact strength (Charpy) at +23°C	nb	kJ/m²	DIN EN ISO 179-1
Notched impact strength (Charpy) at - 30°C	nb	kJ/m²	DIN EN ISO 179-1
Burning behaviour	HB		UL 94

Printing properties	Recommended
Printing temperatures	215 - 250°C
Printing speed	20 - 70 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)

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Date: 01-01-20