

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 remarkable abrasion resistance, higher tolerance to hydrolysis failure, high resistance to bacteria and low temperature flexibility properties in printed parts.

Physical Property	Value	Unit	Test method according to
Material density	1,08	g/cm ³	ISO 1183

Mechanical Property	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	1,5	%	DIN 53504-S2
Stress at 100% elongation	4	%	DIN 53504-S2
Stress at 300% elongation	6	%	DIN 53504-S2
Tear strength	45	N/mm	ISO 34-1
Abrasion resistant	45	mm ³	ISO 4649
Compression set 23°C/72 hours	20	%	ISO 815
Compression set 70°C/24 hours	39	%	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)n at +23°C	nb	kJ/m ²	ISO 179

Thermal Property	Value	Unit	Test method according to
Glass Transition Temperature 10°C/min	-50	°C	ISO 11357-1/-2
VST Vicat Softening Temperature	84	°C	Método Vicat A: 10 Nw, 120°C/h

Printing Proprieties	Recommended
Printing temperatures	215-235°C
Printing speed	20-40 mm/s
Hot-bed temperature	0-40°C
Retractions	3,5-6,5mm (speed 20 - 40mm/s)