

PP

TECHNICAL DATA SHEET

FILSHAPER PP

Elastic filament in VSHAPER offer. It is sold in natural color. The filament is characterized by high chemical resistance eg. oils, gasoline, alcohols and acetone. It has high resistance to mechanical damage. Material can be used in range of temperature from -20 to 120 celsius degrees. PP parts are mainly used in automotive, medical and packing industry eg. closure boxes, lunch boxes, laboratory utensils, probes, orthosis stabilizers, fluid containers, hangers, fasteners, watch straps, living hinges

DELIVERY OF FILSHAPER PP

PP filament has the nominal diameter of 1,75mm and is fit for FDM/FFF printing. It's supplied in 0,75kg spool. The spools are packed in vacuumed plastic bags to prevent hygroscopicity.

STORAGE

Store the filament in airtight packaging in dry place. The filament is usable up to 6 months after opening.

DRYING RECOMMENDATIONS

It is recommended to dry the filament before every usage to avoid stringing, bubbling or other defects: 4h in 80°C

Mechanical properties	Value	Unit	Test Standard
Tensile Modulus	1100	MPa	ISO 527
Tensile Strenght	-	MPa	-
Yield stress	26	MPa	ISO 527
Yield strain	>30	%	ISO 527
Stress at break	21	MPa	ISO 527
Nominal strain at break	250	%	ISO 527
Flexural modulus	-	MPa	-
Flexural strength	18	MPa	ISO 178
Charpy impact strength, +23°C	-	kJ/m ²	-
Charpy impact strength, -30°C	-	kJ/m ²	-
Izod notched impact strength, +23°C	20	kJ/m ²	ISO 180
Izod notched impact strength, -30°C	-	kJ/m ²	-
Hardness (D-Scale)	-	-	-

Thermal properties	Value	Unit	Test Standard
Melting temperature	163	°C	-

Glass transition temperature	-	°C	-
Temp. of deflection under load A, 1 .80 MPa (HDT)	65	°C	ISO 75
Temp. of deflection under load B, 0 .45 MPa (HDT)	80	°C	ISO 75

Physical properties	Value	Unit	Test Standard
Density	1,05	g/cm ³	ISO 1183
Filament Diameter	1.75	mm	-
Linear Shrinkage	-	%	-

Burning behavior	Value	Unit	Test Standard
Flammability class	-	class	-

Rheological properties	Value	Unit	Test Standard
Melt mass-flow rate, MFR	9	g/10 min	ISO 1133
Temperature	230	°C	-
Load	2,16	kg	-

Characteristics	
Key Feature, Industrial Sector	Food, medicine, packing
Key Feature, Processing	3D printing
Key Feature, Resistance to	Chemicals, fatigue
Key Feature, Electrical	Insulator
Example applications	Lab utensils, orthosis stabilizers, lunch boxes, liquid containers
Processing	FFF/FDM
Special Characteristics	-
Color	Natural
Delivery form	Monofilament

Printing settings	VSHAPER 270			VSHAPER 500		
	STD	PRO	MED	STD	PRO	MED
Print temperature	-	-	-	240°C	240°C	240°C
Bed temperature	-	-	-	90°C	90°C	90°C
Chamber temperature	-	-	-	60°C	60°C	60°C
Adhesive plate material	-	-	-	V-SURFACE HT	V-SURFACE HT	V-SURFACE HT
Adhesive glue	-	-	-	Magigoo	Magigoo	Magigoo
Model shrinkage	-	-	-	~1,1%	~1,1%	~1,1%

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