

PC

TECHNICAL DATA SHEET

FILSHAPER PC

Standard filament in VSHAPER offer. It is sold in natural color, black and others. The filament is characterized by high chemical resistance eg. oils, gasoline, alcohols. It has high impact and heat resistance. Material can be used in range of temperature from -20 to 160 celsius degree. PC parts are mainly used in electronic and protective industry eg. laptop enclosures, sensor parts, iron parts, safety googles, bumpers, coffee makers, shells of race helmets.

DELIVERY OF FILSHAPER PC

PC filament has the nominal diameter of 1,75mm and is fit for FDM/FFF printing. It's supplied in 1kg 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	-	MPa	-
Tensile Strenght	60	MPa	ISO 527
Yield stress	-	MPa	-
Yield strain	-	%	-
Stress at break	-	MPa	-
Nominal strain at break,	-	%	-
Flexural modulus	-	MPa	-
Flexural strength	90	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	80	kJ/m ²	ISO 180
Izod notched impact strength, -30°C	-	kJ/m ²	-
Hardness (M-Scale)	70	-	ISO 7619

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

Glass transition temperature	-	°C	-
Temp. of deflection under load A, 1 .80 MPa (HDT)	130	°C	ISO 75
Temp. of deflection under load B, 0 .45 MPa (HDT)	-	°C	-

Physical properties	Value	Unit	Test Standard
Density	1,20	g/cm ³	ISO 1183
Filament Diameter	1.75	mm	-
Linear Shrinkage	0,6	%	-

Burning behavior	Value	Unit	Test Standard
Flammability class	V-2	class	UL94

Rheological properties	Value	Unit	Test Standard
Melt volume-flow rate, MVR	-	cm ³ /10 min	-
Temperature	-	°C	-
Load	-	kg	-

Characteristics	
Key Feature, Industrial Sector	Electronic, body protection
Key Feature, Processing	3D printing
Key Feature, Resistance to	Chemicals, impact, heat
Key Feature, Electrical	Insulator
Example applications	Laptop enclosures, coffee makers, iron pars, safety goggles
Processing	FFF/FDM
Special Characteristics	stiffness
Color	Black
Delivery form	Monofilament

Printing settings	VSHAPER 270			VSHAPER 500		
	STD	PRO	MED	STD	PRO	MED
Print temperature	-	285°C	285°C	300°C	300°C	300°C
Bed temperature	-	95°C	95°C	130°C	130°C	130°C
Chamber temperature	-	70°C	70°C	80°C	80°C	80°C
Adhesive plate material	-	V-SURFACE LT	V-SURFACE LT	V-SURFACE LT	V-SURFACE LT	V-SURFACE LT
Adhesive glue	-	Magigoo	Magigoo	Magigoo	Magigoo	Magigoo
Model shrinkage	-	~0,8%	~0,8%	~0,8%	~0,8%	~0,8%

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