

# PC-ABS

## TECHNICAL DATA SHEET

### FILSHAPER PC-ABS

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 resistance to mechanical damage. Material can be used in range of temperature from -20 to 140 celsius degrees. PC+ABS parts are mainly used in automotive and electronics industry eg. car seat elements, dashboards, electronic enclosures, mobile multimedia devices, keyboards, lockers, knee pads

### DELIVERY OF FILSHAPER PC-ABS

PC-ABS 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	52	MPa	ISO 527
Yield stress	-	MPa	-
Yield strain	-	%	-
Stress at break	-	MPa	-
Nominal strain at break,	-	%	-
Flexural modulus	-	MPa	-
Flexural strength	-	MPa	-
Charpy impact strength, +23°C	45	kJ/m <sup>2</sup>	ISO 179
Charpy impact strength, -30°C	-	kJ/m <sup>2</sup>	-
Izod notched impact strength, +23°C	-	kJ/m <sup>2</sup>	-
Izod notched impact strength, -30°C	-	kJ/m <sup>2</sup>	-
Hardness (M-Scale)	-	-	-

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

Glass transition temperature	-	°C	-
Temp. of deflection under load A, 1 .80 MPa (HDT)	105	°C	ISO 75
Temp. of deflection under load B, 0 .45 MPa (HDT)	125	°C	ISO 75

Physical properties	Value	Unit	Test Standard
Density	1,13	g/cm <sup>3</sup>	ISO 1183
Filament Diameter	1.75	mm	-
Linear Shrinkage	0,4	%	-

Burning behavior	Value	Unit	Test Standard
Flammability class	HB	class	IEC 60695-11-10

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

Characteristics	
Key Feature, Industrial Sector	Automotive, electronic
Key Feature, Processing	3D printing
Key Feature, Resistance to	Heat, impact
Key Feature, Electrical	Insulator
Example applications	Dashboards, car seat elements, lockers, chargers, electronic enclosures
Processing	FFF/FDM
Special Characteristics	-
Color	Natural
Delivery form	Monofilament

Printing settings	VSHAPER 270			VSHAPER 500		
	STD	PRO	MED	STD	PRO	MED
Print temperature	260°C	260°C	260°C	270°C	270°C	270°C
Bed temperature	90°C	90°C	90°C	100°C	100°C	100°C
Chamber temperature	-	60°C	60°C	70°C	70°C	70°C
Adhesive plate material	V-SURFACE LT	V-SURFACE LT	V-SURFACE LT	V-SURFACE LT	V-SURFACE LT	V-SURFACE LT
Adhesive glue	Dimafix	Dimafix	Dimafix	Dimafix	Dimafix	Dimafix
Model shrinkage	~0,9%	~0,9%	~0,9%	~0,9%	~0,9%	~0,9%

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