

Technical Data Sheet— AquaSol-120 Filament

AquaSol-120 is a patent-pending biodegradable alkali soluble support filament of Silver 3D. It can be used in conjunction with engineering thermoplastics such as ABS, nylon and polycarbonate in additive manufacturing processes. The support material is made of non-toxic ingredients and can be easily removed by exposure to warm alkali water.

Features	Application
<ul style="list-style-type: none"> ● Biodegradable ● Impact modified ● Alkali Soluble ● Low warpage 	<ul style="list-style-type: none"> ● Cultural and creative ● Toys ● Gifts ● Industrial

Physical	Typical Value	Unit	Method	Test Condition
Density	1.41	g/cm ³	ASTM D1505	23°C
Melt Flow Rate	8	g/10min	ASTM D1238	190°C/2.16KG

Mechanical	Typical Value	Unit	Method	Test Condition
Tensile Strength	25	MPa	ASTM D638	50mm/min
Elongation at Break	10	%	ASTM D638	50mm/min
Flexural Strength	45	MPa	ASTM D790	5mm/min
Flexural Modulus	2500	MPa	ASTM D790	5mm/min
Notched Izod Impact Strength	160	J/m	ASTM D256	23°C

Thermal	Typical Value	Unit	Method	Test Condition
Melting Temperature	170	°C	DSC	10°C/min
Printing Temperature	190-230	°C	/	/
Plate Temperature	60-80	°C	/	/
Heat Deflection Temperature	90	°C	ASTM D648	120°C/h, 0.45MPa
Dissolve Temperature	50-70°C	°C	/	5% NaOH in water

Notice The data contained in this document is based on trials carried out by our Research Centers. Properties are dependent upon process conditions and machine used, so these figures are only given for information.