SAKATA 3D FILAMENTS®

ASA

Technical Data Sheet
Ficha Técnica

SAKATA 3D ASA filament is suitable for all consumer-grade 3D FDM/FFF printers. This material exhibits mechanical properties and surface finish similar than ABS. However, it shows an UV resistance significantly higher than ABS. Sakata3D ASA filament shows an easy printability and good adhesion to plates and between layers. Ideal for printed parts that require high mechanical properties and exposure to sunlight. Made in Spain by POLIMERSIA GLOBAL S.L.

FILAMENT SPECIFICATIONS	Unit	Value
Diameter	mm	1.75 ± 0.03
Max. roundness deviation	mm	0.03
Net weight	g	850

PHYSICAL PROPERTIES	Standard	Unit	Value
Density	ISO 1183	g/cm3	1.07
MECHANICAL PROPERTIES	**Standard**	**Unit**	**Value**
Tensile modulus (1)	ISO 527	MPa	2,300
Tensile strength at break (1)	ISO 178	MPa	NA
Tensile yield strength (1)	ISO 178	MPa	48
Elongation at break (1)	ISO 527	%	9
Flexural modulus (1)	ASTM D790	MPa	NA
Flexural strength (1)	ISO 178	MPa	70
Izod notched impact strength (1)	ISO 180/A	KJ/m^2	14
THERMAL PROPERTIES	**Standard**	**Unit**	**Value**
HDT (0.45 MPa) (1)	ISO 75	ºC	97-105
VICAT (1)	ISO 306	ºC	97-101

(1) Injection moulding bars.
NA: Not available.

PRINT SETTINGS (*)	Unit	Valor
Nozzle temp.	ºC	Classic: 240 - 260 High speed: 260 - 280
Type of nozzle	-	Brass
Bed temp.	ºC	> 90
Type of bed	-	Glass or PEI
Bed treatment	-	Adhesive spray or stick
Closure chamber	-	Yes
Cooling fan	%	0 - 20
Layer height	mm	0.1 – 0.3
Print speed	mm/s	Classic: < 90 High speed: 100 - 300
Max. volumetric speed	mm^3/s	27
Dry specification	Before printing	4 – 6 hours at 70 ºC (recommendable)
	During printing	70 ºC (optional)

(*) Settings are based on a 0.4 mm nozzle.

Certifications / Approvals

SAKATA 3D ASA filament is not certified for food contact either medical applications.

Safety Considerations

During printing of SAKATA 3D ASA filament small quantities of styrene monomer may be released into the atmosphere. At styrene vapor concentrations below 20 ppm no negative effects on health are expected. Well ventilated workplace is strongly recommended.

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