

SAKATA 3D ABS-E filament is suitable for all consumer-grade 3D FDM/FFF printers. This filament can be used in all those applications where high strength, ductility, and thermal stability levels are required. It exhibits low warping and cracking, good bonding, and low odour. 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 / 1,000

PHYSICAL PROPERTIES	Standard	Unit	Value
Density	ASTM D792	g/cm3	1.04
MECHANICAL PROPERTIES	Standard	Unit	Value
Tensile modulus ⁽¹⁾	ASTM D638	MPa	NA
Tensile strength at break ⁽¹⁾	ASTM D638	MPa	NA
Tensile yield strength ⁽¹⁾	ASTM D638	MPa	42
Elongation at break ⁽¹⁾	ASTM D638	%	40
Flexural modulus ⁽¹⁾	ASTM D790	MPa	2,413
Flexural strength ⁽¹⁾	ASTM D790	MPa	68
Izod notched impact strength ⁽¹⁾	ASTM D256	Kg-cm/cm	35
THERMAL PROPERTIES	Standard	Unit	Value
HDT (0.45 MPa) ⁽¹⁾	ASTM E2092	°C	85-95
VICAT ⁽¹⁾	ASTM D1525	°C	105

⁽¹⁾ Injection moulding bars.

NA: Not available.

PRINT SETTINGS (*)	Unit	Valor
Nozzle temp.	°C	Classic: 235 - 250 High speed: 255 - 280
Type of nozzle	-	Brass
Bed temp.	°C	> 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 °C (recommendable)
	During printing	70 °C (optional)

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

Certifications / Approvals

SAKATA 3D ABS-E filament is not certified for food contact either medical applications.

Safety Considerations

During printing of SAKATA 3D ABS-E 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.

Disclaimer

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