



SAKATA 3D PLA HS (High Speed) is a biodegradable high-speed filament specifically developed for printing speeds of up to 500 mm/s without compromising quality. This material ensures an excellent smooth printing, adhesion to bed, layer bonding, efficiency and precision, and minimal warping. Ideal for quick prototyping and high-volume production. 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	1,000

PHYSICAL PROPERTIES	Standard	Unit	Value
Density	ISO 1183	g/cm ³	1.32
MECHANICAL PROPERTIES	Standard	Unit	Value
Tensile modulus ⁽¹⁾	ISO 527	MPa	NA
Tensile strength at break ⁽¹⁾	ISO 527	MPa	42
Elongation at break ⁽¹⁾	ISO 527	%	6
Flexural modulus ⁽¹⁾	ISO 178	MPa	NA
Flexural strength ⁽¹⁾	ISO 178	MPa	NA
Charpy notched impact strength ⁽¹⁾	ISO 179	KJ/m ²	NA
Charpy unnotched impact strength ⁽¹⁾	ISO 179	KJ/m ²	NA
THERMAL PROPERTIES	Standard	Unit	Value
HDT (0.45 MPa) ⁽¹⁾	ISO 75-1/2	°C	60
Vicat ⁽¹⁾	UNE-EN-ISO 306	°C	60

⁽¹⁾ 3D printing bars.

PRINT SETTINGS ⁽¹⁾	Unit	Value
Nozzle temp.	°C	Classic: 190 - 210 High speed: 210 - 240
Type of nozzle	-	Brass
Bed temp.	°C	> 45
Type of bed	-	Glass or PEI
Bed treatment	-	Adhesive spray or stick when needed
Closure chamber	-	Not needed
Cooling fan	%	100
Layer height	mm	0.1 – 0.3
Print speed	mm/s	Classic :50 - 100 High-speed: 100 – 500 ⁽²⁾
Max. volumetric speed	mm ³ /s	36 ⁽²⁾
Dry specification	Before printing	4 – 6 hours at 55 °C (optional)
	During printing	55 °C (optional)

⁽¹⁾ Settings are based on a 0.4 mm nozzle.

⁽²⁾ Nozzle temperature: 240 °C.

Certifications / Approvals

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

Safety Considerations

Good general ventilation of the workplace is recommended.

Disclaimer

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