



SAKATA 3D RE-FLEX-85A is a flexible, 100% recycled, biodegradable and partially renewable filament, developed specifically for FDM/FFF 3D printers. It shows an average Shore A hardness of 85, high thermal and chemical resistances, very good adhesion to the bed and an excellent impact resistance. Despite being a flexible material, it can be printed very easily. Ideal for parts that require high impact resistance and/or flexibility, such as tires, belt, etc. Manufactured 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	1.23 – 1.27
Hardness	ISO 868	Shore A	85 ± 5
MECHANICAL PROPERTIES	Standard	Unit	Value
Tensile modulus ⁽¹⁾	ISO 527	MPa	NA
Tensile strength at break ⁽¹⁾	ISO 527	MPa	NA
Elongation at break ⁽¹⁾	ISO 527	%	NA
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
VICAT ⁽¹⁾	ISO 306	°C	84
HDT (0,45 MPa) ⁽¹⁾	ISO 75-1, 75-2	°C	61

NA = not available.

⁽¹⁾ 3D printing bars, 4 mm thickness.

PRINT SETTINGS (*)	Unit	Value
Nozzle temp.	°C	220 - 245
Type of nozzle	-	Brass
Bed temp.	°C	< 40
Type of bed	-	Glass or PEI
Bed treatment	-	Not needed
Closure chamber	-	Not needed
Cooling fan	%	100
Layer height	mm	0.2
Print speed	mm/s	10 - 50
Dry specification	Before printing	2 – 4 hours at 60 °C (optional)
	During printing	60 °C (optional)

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

Certifications / Approvals

SAKATA 3D PLA RE-FLEX-85A 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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