

HIPS Technical Data Sheet (TDS)

HIPS is a tough and durable materials. It is a special material due to its characteristic which printing with higher temperatures will allow it to be a stronger / tougher support, however, will make it more difficult to remove.

IEMAI 3D high performance HIPS filament is based on FFF/FDM technology, with a commonly used diameter of 1.75 mm, 220-235°C printing temperature, 100-110 °C bed temperature, having excellent interlayer adhesion which greatly improve the strength and shock resistance of the prototype, apart from these features, it is a great material to use as a support for ABS as there is a good compatibility between two materials.

Physical Properties	Standard	Unit	Typical Value
Density	ISO 1183	g/cc	1.04

Mechanical Properties	Standard	Unit	Typical Value
Tensile Strength, Break	ISO 527	MPa	40
Tensile Modulus	ISO 527	MPa	1350
Tensile Elongation, Break	ISO 527	%	18
Flexural Strength	ISO 178	MPa	70
Flexural Modulus	ISO 178	MPa	1600

Thermal Properties	Standard	Unit	Typical Value
Glass Transition Temperature (Tg)	DSC	°C	100
Deflection Temperature at 0.45 MPa (66psi)	ISO 75	°C	80

Electricity Property	Standard	Unit	Typical Value
Surface Resistance	ASTM D257	Ohm/sq	>10 ¹³

Print Recommendation	
Nozzle Temperature	220 -235 °C
Bed Temperature	100 -110 °C
Print Speed	30-70 mm/s
Chamber Temperature	50-70 °C
Cooling Fan	0-50%