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Innovating Tomorrow's Materials

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Technical Data Sheet: Impact Modified PLA

Description: Our impact-modified PLA marries classic PLA printability with a dose of toughness. The PBAT-enhanced formula resists the brittleness of standard PLA, delivering higher impact strength and 30 % elongation. Tuned for high-speed, low-warpage printing, it's perfect for rapid, dimensionally accurate prototyping straight off the bed. This material is FDA approved for food and beverage use.

Physical Properties	Standard	Units	Recorded Value
Density	ISO 1183	g/mL	1.24

Mechanical Properties	Standard	Unit	Recorded Value
Tensile Strength, Break	ISO 527	MPa	63
Elongation at break	ISO 527	%	30
Flexural Strength	ISO 178	MPa	74
Flexural Modulus	ISO 178	MPa	2114
IZOD Impact, charpy	GB/T 1843	kJ/m^2	9

Thermal Properties	Standard	Unit	Recorded Value
Glass Transition Temp. Tg	DSC	°C	65
Heat Deflection Temperature at 0.45 MPa	ISO 75	°C	80

Electrical Properties	Standard	Unit	Recorded Value
Surface Resistance	ASTM D257	Ω / sq	$>10^{13}$

Printer Settings:
Extruder Temperature: 200-220°C
Build Plate Temperature: 65°C
Fan speed: 100%
Print Speed: < 1000 mm/s
Max Volumetric Flow: < 30 mm^3 / s on 800 micron nozzles

Notice:
Typical values, not specifications. Performance varies with printer, part geometry, and settings. Users must verify fitness for purpose and comply with regulations. Matter Industries Inc. provides no warranties and assumes no liability.