

Technical Data Sheet

Chemical Name:

Enhanced Polylactic Acid

Main Applications:

Concept modeling, Educational projects, Design objects, Ideal for prototypes and functional parts.

Description:

KODAK PLA Tough is as easy to print as regular PLA with a 9 times higher impact resistance. It has been manufactured with the highest grade of Ingeo™ certified resins for industrial applications. It provides excellent 3D printing characteristics, such as precise detail, good adhesion to build plates and low warping, curling and odor.

Key Aspects:

Our filament has passed a defined set of tests to assure the highest quality and thus reliable and repeatable printing performance. Furthermore, this polymer is formulated to crystallize when annealed post-printing to improve its thermal performance and further enhance its impact properties.

Diameter:

1.75 mm, 2.85 mm

Meters per 750 g:

308.726 / 116.402

Weight:

750 g

Weight per meters:

2.43 / 6.44 g

Density:

1.01

Meters per kg:

411.634 / 115.202

Color Information:

Color:

Black
White
Natural

PANTONE:

6C
11-4001
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Printing Settings

Annealing Temperature	110 - 120 °C
Printing Temperature	200 - 220 °C
Density (g/cc)	1.22
Build Plate Temperature	Optional 50 - 70 °C
Cooling Fans	YES, Except 1st layer

Physical Properties

3D870

ASTM Method

Specific Gravity, g/cc	1.22	D 792
MFR, g/10 min(2)	9-15	D 1238
Peak Melt Temperature, °C	165-180	D 3418
Glass Transition Temperature, °C	55-60	D 3418

Mechanical Properties

XY AXIS

YX AXIS

ZX AXIS

ASTM Method

Tensile Strength, psi (MPa)	5.802(40)	4.641(32)	3.481(24)	D 638
Tensile Modulus, kpsi (MPa)	416(2,865)	355(2447)	359(2,477)	D 638
Flexural Strength, psi (MPa)	10.588(73)	7.106(49)	6.672(46)	D 790
Flexural Modulus, kpsi (MPa)	350(2,414)	287(1979)	341(2,352)	D 790
Notchez Izod Impact (amorphus) ft-lb/in (J/m)	2.99(160)	2.26(21)	2.04(109)	D 256
Notchez Izod Impact (crystalline) ft-lb/in (J/m)	4.37(233)	3.74(200)	1.19(64)	D 256
Heat Distortion Temperature, °C	--	75-85	--	E 2092

Disclaimer:

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