



### INDUSTRIAL ENGINEER - High heat and impact grade

Print with the properties of ABS, with the ease of PLA. Maximum resistance and maximum quality in the finish.



PHYSICAL PROPERTIES	AVERAGE VALUE	UNITS	STANDARDS
MATERIAL DENSITY	1,22	g/cm <sup>3</sup>	ASTM D792
MRF	9 - 15	g/10 min <sup>2</sup>	ASTM D1238
MAXIMUM FUSION TEMPERATURE	165 - 180	°C	ASTM D3418
GLASS TRANSITION TEMPERATURE	55 - 60	°C	ASTM D3418

MECHANICAL PROPERTIES	XY AXIS	YX AXIS	ZX AXIS	UNITS	STANDARDS
TENSILE FORCE	5.802 (40)	4.642 (32)	3.481 (24)	psi (MPa)	ASTM D638
TRACTION MODULE	416 (2.865)	355 (2.447)	359 (2.477)	kpsi (MPa)	ASTM D638
FLEXIBLE FORCE	10.588 (73)	7.106 (49)	6.672 (46)	psi (MPa)	ASTM D790
BENDING MODULE	350 (2.414)	287 (1.979)	341 (2.352)	kpsi (MPa)	ASTM D790
IZOD IMPACT WITH NOTCHES [AMORPHOUS]	2,99 (160)	2,26 (21)	2,04 (109)	ft-lb/in (J/m)	ASTM D256
IZOD WITH NOTCHES [CRYSTALLINE]	4,37 (233)	3,74 (200)	1,19 (64)	ft-lb/in (J/m)	ASTM D256
DISTORTION TEMPERATURE OF HOT, 66 psi (0,45 MPa)		75 - 85		°C	ASTM E2092

THERMAL PROPERTIES	AVERAGE VALUES	UNITS	STANDARDS
FUSION TEMPERATURE	210 (410)	°C (°F)	
FEED	45 (113)	°C (°F)	
FEED TEMPERATURE	190 (355)	°C (°F)	
COMPRESSION SECTION	200 (375)	°C (°F)	
MEASUREMENT SECTION	210 (390)	°C (°F)	
ADAPTER	210 (390)	°C (°F)	
MOLD	210 (390)	°C (°F)	
SCREW SPEED	20 - 150	rpm	
FILAMENT DIAMETER INSPECTION	+/- 3% max. deviation		

PRINTING PROPERTIES	AVERAGE VALUES	UNITS	STANDARDS
NOZZLE TEMPERATURE	200 - 230	°C	
HOT BED TEMPERATURE	Not necessary (50 - 60)	°C	

SPOOL SIZE	DIAMETER	ON REQUEST	COLOR	PACKAGING
300g	1,75mm		Various	Cardboard box, vacuum and silica
1Kg	1,75 - 2,85mm		Various	Cardboard box, vacuum and silica
3Kg	1,75 - 2,85mm	Yes	Various	Cardboard box, vacuum and silica
5Kg	1,75 - 2,85mm	Yes	Various	Cardboard box, vacuum and silica
8Kg	1,75 - 2,85mm	Yes	Various	Cardboard box, vacuum and silica

\* The indicated parameters are valid for correctly calibrated printers (PyD, mechanical and fuser).  
\* Supervised and tested manufacturing process (diameter, color and winding) to guarantee the quality of our product.