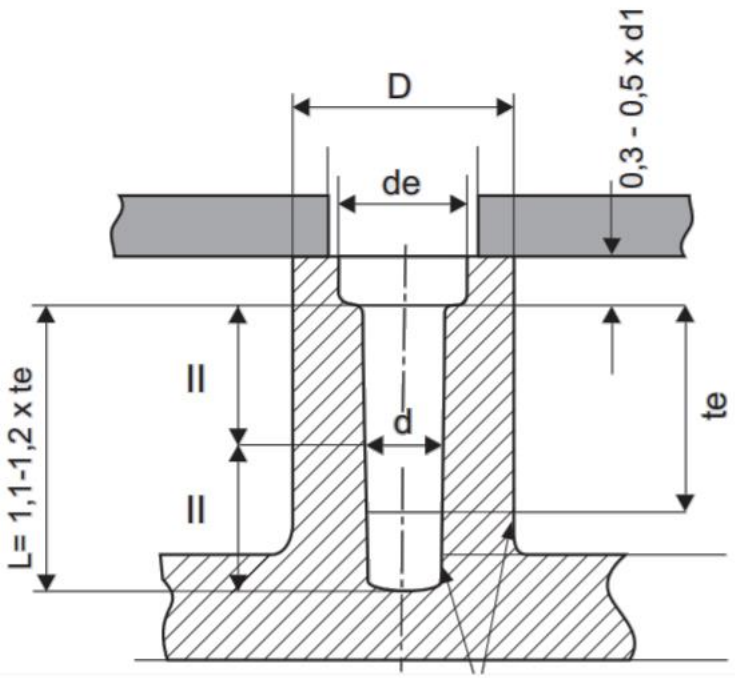
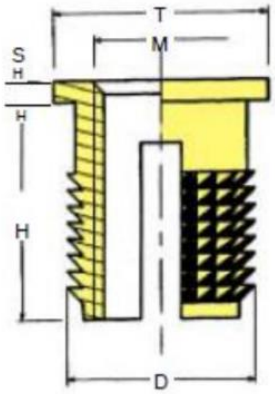
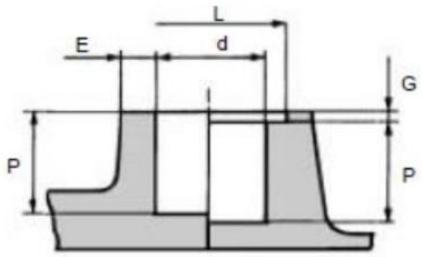


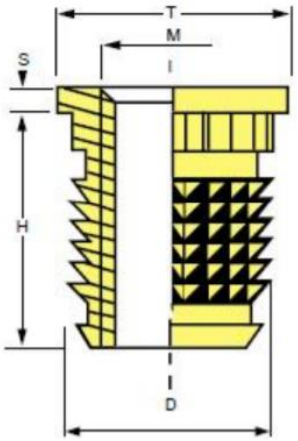
Boss Geometry

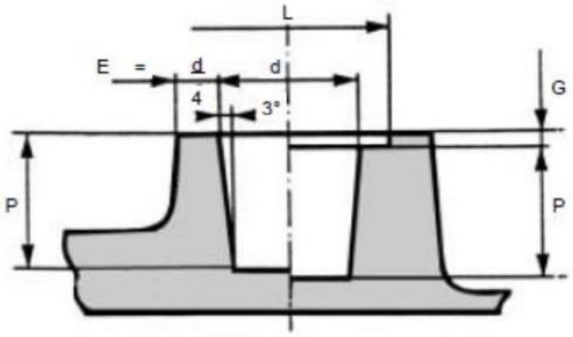
OutsideØD	=2xd
Pilot holed	= 0.8 x d1
Engagement t_e	= 2 x d1
Edge relief d_e	= d1 + 0.2 mm





Závit M	Objednací číslo	Výška				Rozměry otvoru				
	Serplast C	H	D	T	S	d	P min.	E min.	L min.	G
M2,5	40/C025H065	6,5	4,5	6	0,5	4	7	2	6,2	0,5
M3	40/C030H065	6,5	4,5	6	0,5	4	7	2	6,2	0,5
M3,5	40/C035H080	8	5,5	7	0,5	5	8,8	2,5	7,2	0,5
M4	40/C040H080	8	6	7	0,8	5,5	8,8	2,8	7,2	0,8
M5	40/C050H080	8	7	8	0,8	6,5	8,8	3,3	8,2	0,8
M6	40/C060H095	9,5	8,5	10	0,8	8	10	4	10,2	0,8
M8	40/C080H100	10	10	12	1	9,5	10,3	4,8	12,2	1
M10	40/C100H130	13	12	14	1	11,5	14	5,8	14,2	1





Závit M	Objednací číslo Serplast THC	Výška H	D	T	S	Rozměry otvoru d	P min.	E mini.	L min.	G
M2	40/THC020H040	4	4	5	0,5	3,5	6,5	1	5,2	0,5
M2,5	40/THC025H050	5	4	5	0,5	3,5	6,5	1	5,2	0,5
M3	40/THC030H055	5,5	4,5	6	0,5	4	7	1,1	6,2	0,5
M3,5	40/THC035H060	6	5,5	7	0,5	5	7,5	1,3	7,2	0,5
M4	40/THC040H075	7,5	6	7,5	0,8	5,4	9	1,4	7,7	0,8
M5	40/THC050H080	8	7	8	0,8	5,4	9,5	1,7	8,2	0,8
M6	40/THC060H090	9	8,5	10	0,8	7,9	11	2	10,2	0,8
M8	40/THC080H100	10	10	12	1	9,4	13	2,4	12,2	1
M10	40/THC100H130	13	12	14	1	11,3	15,5	2,9	14,2	1

Version: 1.0
Last update: 20-09-2018

PRUSA POLYMERS by JOSEF PRUSA

TECHNICAL DATA SHEET

Prusament PLA by Prusa Polymers

PLA is the most commonly used filament. It's biodegradable, easy to print, and very strong.
The perfect choice for printing large objects thanks to its low thermal expansion (little to no warping) and for printing tiny parts because of its low melting temperature.

APPLICATIONS:
Concept models, functional prototypes, low-wear toys, etc.

NOT SUITABLE FOR:
Long term outdoor usage because of low temperature resistance (up to 60 °C).

POST-PROCESSING:
Wet sanding. Without water you'll quickly start heating the plastic by friction, it will melt locally and make it hard to keep sanding.

IDENTIFICATION:

Trade name	Prusament PLA
Chemical name	Polylactic Acid
Usage	FDM 3D printing
Manufacturer	Prusa Polymers, Prague, Czech Republic

RECOMMENDED PRINT SETTINGS:

Nozzle Temperature [°C]	210 ± 10
Heatbed Temperature [°C]	40-60
Print Speed [mm/s]	up to 200

PRUSA POLYMERS by JOSEF PRUSA

TYPICAL MATERIAL PROPERTIES:

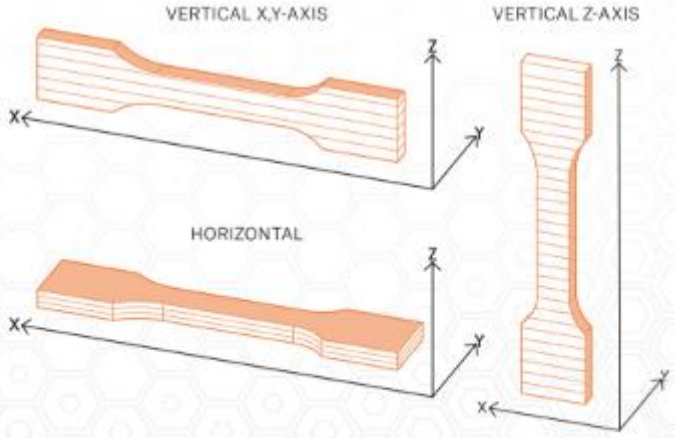
Physical Properties	Typical Value	Method
Peak Melt Temperature [°C]	145-160	ISO 11357
Glass Transition Temperature [°C]	55-60	ISO 11357
MFR [g/10min][1]	10.4	ISO 1133
MVR [cm³/10min][1]	9.4	ISO 1133
Specific Gravity [g/cm³]	1.24	ISO 1183
Moisture Absorption 24 hours [%][2]	0.3	Prusa Polymers
Moisture Absorption 7 days [%][2]	0.3	Prusa Polymers
Moisture Absorption 4 weeks [%][2]	0.3	Prusa Polymers
Heat Deflection Temperature (0,45 MPa) [°C]	55	ISO 75
Tensile Yield Strength Filament [MPa]	57.4 ± 0.4	ISO 527-1

[1] 2,16 kg; 210 °C | [2] 28 °C; humidity 37 %

MECHANICAL PROPERTIES OF PRINTED TESTING SPECIMENS[3]:

Property / print direction	Horizontal	Vertical X,Y-Axis	Vertical Z-Axis	Method
Tensile Modulus [GPa]	2,2 ± 0,1	2,4 ± 0,1	2,3 ± 0,1	ISO 527-1
Tensile Yield Strength [MPa]	50,8 ± 2,4	59,3 ± 1,9	37,6 ± 4,0	ISO 527-1
Elongation at Yield Point [%]	2,9 ± 0,3	3,2 ± 0,1	1,9 ± 0,3	ISO 527-1
Impact Strength Charpy[4] [kJ/m²]	12,7 ± 0,7	13,7 ± 0,7	5,0 ± 1,4	ISO 179-1

[3] Original Prusa i3 MK3 3D printer was used to print testing specimens. Slic3r Prusa Edition 1.40.0 was used to create G-codes with following settings: Prusa PLA Filament; Print settings 0,20mm FAST (layers 0.2mm); solid layers Top: 0 Bottom: 0; Infill 100% Rectilinear, infill print speed 200mm/s; extruder temperature 215°C all layers; bed temperature 60°C all layers; other parameters set to default | [4] Charpy Unnotched, edgewise direction of blow according to ISO 179-1



DISCLAIMER

The results presented in this data sheet are just for your information and comparison. Values are significantly dependent on print settings, operators experiences and surrounding conditions. Everyone have to consider suitability and possible consequences of printed parts usage. Prusa Polymers can not carry any responsibility for injures or any loss caused by using of Prusa Polymers material.