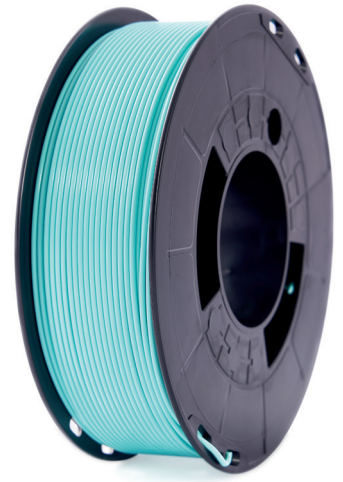




# 3D Filament Brochure

## HIGH DEFINITION - Definition, surface finish and resistance.

Biodegradable filament and suitable for all 3D printers. It is very easy to print as it has no shrinkage so you can make really big pieces. With our PLA filament you can achieve a fantastic finish and vivid colors in all your pieces. Excellent adherence to bed between capable.



PHYSICAL PROPERTIES	AVERAGE VALUES	UNITS	STANDARDS
DENSITY	1,24	g/cm <sup>3</sup>	
FLOW RATE (210°C/2.16KG)	8	g/10 min	ISO 1133-A
FLOW RATE (190°C/2.16KG) STEREOCHEMICAL	3	g/10 min	ISO 1133-A
PURITY (CORBION METHOD) RESIDUAL	96	(% L-isomero)	
MONOMER (CORBION METHOD) MOISTURE	0.3% (max)		
(COULOMETRIC KARL-FISHER) MELTING TEMPERATURE	155°	°C Tm (DSC)	
GLASS TRANSITION TEMPERATURE	55 - 60°	°C Tg (DSC)	

MECHANICAL PROPERTIES	AVERAGE VALUES	UNITS	STANDARDS
TENSILE MODULUS	3500	MPa	ISO 527-1
TENSILE STRENGTH	45	MPa	ISO 527-1
STRAIN AT YIELD	5% (max)		ISO 527-1
IMPACT STRENGTH - CHARPY METHOD	23°	°C	ISO 179-1eA

PRINTING PROPERTIES	AVERAGE VALUES	UNITS	STANDARDS
NOZZLE TEMPERATURE	190 - 230	°C	
HOT BED TEMPERATURE	50 - 70	°C	
COOLING FAN	ON (100)	%	

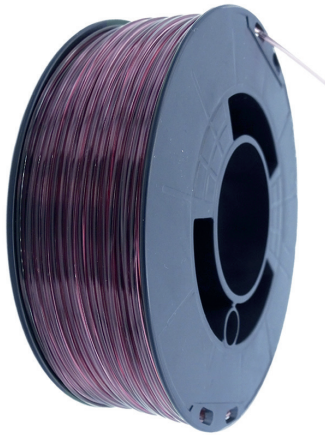
SPOOL SIZE	DIAMETER	ON REQUEST	COLOR	PACKAGING
300g	1,75 mm		Various	Carboard box, vacuum and silica
1Kg	1,75 mm		Various	Carboard box, vacuum and silica



## Product Range

Art. No.	Type	Colour	Diameter	Weight
30241941	RND 705-00001	White	1.75 mm	300 g
30241942	RND 705-00002	White	1.75 mm	1 kg
30241943	RND 705-00003	Black	1.75 mm	300 g
30241944	RND 705-00004	Black	1.75 mm	1 kg
30241945	RND 705-00005	Grey	1.75 mm	300 g
30241946	RND 705-00006	Grey	1.75 mm	1 kg
30241947	RND 705-00007	Transparent	1.75 mm	300 g
30241948	RND 705-00008	Transparent	1.75 mm	1 kg
30241949	RND 705-00009	Red	1.75 mm	300 g
30241950	RND 705-00010	Red	1.75 mm	1 kg
30241951	RND 705-00011	Blue	1.75 mm	300 g
30241952	RND 705-00012	Blue	1.75 mm	1 kg
30241953	RND 705-00013	Yellow	1.75 mm	300 g
30241954	RND 705-00014	Yellow	1.75 mm	1 kg
30241955	RND 705-00015	Green	1.75 mm	300 g
30241956	RND 705-00016	Green	1.75 mm	1 kg
30241957	RND 705-00017	Light Blue	1.75 mm	300 g
30241958	RND 705-00018	Light Blue	1.75 mm	1 kg
30241959	RND 705-00019	Gold	1.75 mm	300 g
30241960	RND 705-00020	Gold	1.75 mm	1 kg
30241961	RND 705-00021	Silver	1.75 mm	300 g
30241962	RND 705-00022	Silver	1.75 mm	1 kg
30241963	RND 705-00023	Brown	1.75 mm	300 g
30241964	RND 705-00024	Brown	1.75 mm	1 kg
30241965	RND 705-00025	Fluorescent Green	1.75 mm	300 g
30241966	RND 705-00026	Fluorescent Green	1.75 mm	1 kg
30241967	RND 705-00027	Flourescent Orange	1.75 mm	300 g
30241968	RND 705-00028	Flourescent Orange	1.75 mm	1 kg
30241969	RND 705-00029	Grey/White	1.75 mm	300 g
30241970	RND 705-00030	Grey/White	1.75 mm	1 kg

# 3D Printer Filament PET-G



Simple to print and with an excellent finish. Temperature resistant and with very good mechanical properties. Transparent material is optimal for interiors, as it degrades with UV rays.



PROPERTIES	AVERAGE VALUES	UNITS	STANDARDS
INTRINSIC VISCOSITY	0.84 ± 0.02	dl/g	ISO 1628-5
COLOR b*	≤ 1		ASTM D6290
COLOR L*	≥ 64		ASTM D6290
GLASS TRANSITION TEMPERATURE	8	°C	ASTM D3418
BULK DENSITY	0,72	g/cm <sup>3</sup>	
SPECIFIC DENSITY	1,23	g/cm <sup>3</sup>	
HUMIDITY	≤ 0.3	%	
PARTICLE SIZE	320 ± 50	mg/20 chips	
PELLET SHAPE	Cylindrical		

PRINTING TEMPERATURE	AVERAGE VALUES	UNITS	STANDARDS
NOZZLE TEMPERATURE	240 - 260	°C	
HOT BED TEMPERATURE	70 - 100	°C	

SPOOL SIZE	DIAMETER	ON REQUEST	COLOR	PACKAGING
300g	1,75 mm		Various	Cardboard box, vacuum and silica
1Kg	1,75 mm		Various	Cardboard box, vacuum and silica

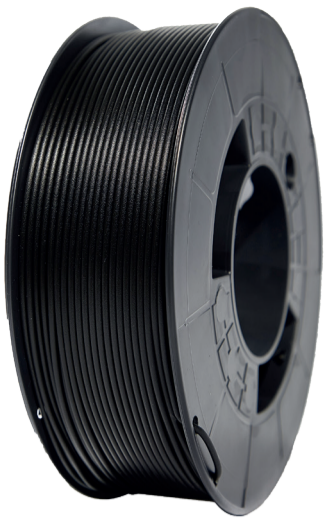


# 3D Printer Filament PET-G



## Product Range

Art. No.	Type	Colour	Diameter	Weight
30241971	RND 705-00031	White	1.75 mm	300 g
30241972	RND 705-00032	White	1.75 mm	1 kg
30241973	RND 705-00033	Black	1.75 mm	300 g
30241974	RND 705-00034	Black	1.75 mm	1 kg
30241975	RND 705-00035	Transparent	1.75 mm	300 g
30241976	RND 705-00036	Transparent	1.75 mm	1 kg



Good weather resistance, general purpose.

Perfect filament to manufacture pieces destined to be in spaces exteriors due to their high resistance to heat and UV rays. Highlights also for its great chemical resistance.



PHYSICAL PROPERTIES	AVERAGE VALUES	UNITS	STANDARDS
MATERIAL DENSITY	1,07		ASTM D792
MOLDING CONTRACTION (FLOW), 3,2 MM	0,4~0,7	%	ASTM D955
FLOW INDEX (220°C/10KG)	12	g/10min	ASTM D1238

MECHANICAL PROPERTIES	AVERAGE VALUES	UNITS	STANDARDS
TENSILE STRENGTH, 3,2 MM (@YIELD 50mm/min)	480	kg/cm <sup>2</sup>	ASTM D638
ELONGATION BY TRACTION, 3,2 MM (@YIELD 50mm/min)	>6	%	ASTM D638
ELONGATION BY TRACTION, 3,2 MM (@Break 50mm/min)	25	%	ASTM D638
TRACTION MODULE (1mm/min)	21.200	kg/cm <sup>2</sup>	ASTM D638
FLEXIBLE FORCE (15mm/min)	770	kg/cm <sup>2</sup>	ASTM D790
BENDING MODULE (15mm/min)	22.500	kg/cm <sup>2</sup>	ASTM D790
IMPACT RESISTANCE IZOD, 6,4 MM, 23°C (NOTCHED)	16	kg·cm/cm	ASTM D256
IMPACT RESISTANCE IZOD, 6,4 MM, -30°C (NOTCHED)	4	kg·cm/cm	ASTM D256
IMPACT RESISTANCE IZOD, 3,2 MM, 23°C (NOTCHED)	18	kg·cm/cm	ASTM D256
IMPACT RESISTANCE IZOD, 3,2 MM, -30°C (NOTCHED)	4	kg·cm/cm	ASTM D256
ROCKWELL HARDNESS (R-SCALE)	103		ASTM D785

THERMAL PROPERTIES	AVERAGE VALUES	UNITS	STANDARDS
THERMAL DEFLECTION TEMPERATURE, 6.4MM, 18.6KG (NOT ANNEALED)	86	°C	ASTM D648
THERMAL DEFLECTION TEMPERATURE, 6.4MM, 4.6KG (NOT ANNEALED)	96	°C	ASTM D648
SOFTENING TEMPERATURE VIC (5kg, 50°C/h)	95	°C	ASTM D1525
INFLAMMABILITY (0,8mm)	HB	class	UL94
INFLAMMABILITY (1,6mm)	HB	class	UL94
INFLAMMABILITY (2,5mm)	HB	class	UL94
INFLAMMABILITY (3,2mm)	HB	class	UL94
RELATIVE TEMPERATURE INDEX (ELECTRICAL)		°C	UL 746B
RELATIVE TEMPERATURE INDEX (IMPACT MECHANICS)		°C	UL 746B
RELATIVE TEMPERATURE INDEX (NON-IMPACT MECHANICAL)		°C	UL 746B

PRINTING PROPERTIES	AVERAGE VALUES	UNITS	STANDARDS
NOZZLE TEMPERATURE	240 -260	°C	
HOT BED TEMPERATURE	70 - 100	°C	

SPOOL SIZE	DIAMETER	ON REQUEST	COLOR	PACKAGING
250g	1,75 mm			Cardboard box, vacuum and silica
1Kg	1,75 mm			Cardboard box, vacuum and silica



**Product Range**

Art. No.	Type	Colour	Diameter	Weight
30241977	RND 705-00037	Black	1.75 mm	250 g
30241978	RND 705-00038	Black	1.75 mm	1 kg
30241979	RND 705-00039	Clear	1.75 mm	250 g
30241980	RND 705-00040	Clear	1.75 mm	1 kg

