Technical Data Sheet

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NYLON - Technical4000 ™ 1.75 mm/1 kg is an industrial PA-6 nylon filament that combines excellent mechanical, chemical and flexible properties by printing For good results, you must print at a temperature of 260-280°C, and the printing table should be heated to 90-120°C. Please note that the range in the print temperature may slightly differ depending on the use of other printers.

NYLON combines good gas barrier properties and chemical resistance, good mechanical and optical properties along with high abrasion resistance and good thermoformability.

Product Specifications	Values	Standard method
Relative viscosity (1% m/v in 96% m/m sulphuric acid, 25ºC)	4±0,1	ISO 1628
Extractable % max.	≤ 1	ISO 6427
Moisture content % max.	≤ 0,1	NAPPA-032

General Properties	Unit	Value	Testing method
Melting point	ºC	220	ISO 3146
Density	g/cm^3	1,13	ISO 1148
Water absorption (23ºC/sat.)	%	9	ISO 62
Moisture absorption (23ºC/50 %RH)	%	3	ISO 62
Apparent density	g/cm^3	0,69	NAPPA-059
Chip size (length-diameter)	mm	2,5	NAPPA-045

Nylon Filament Must be Dried before printing:

Nylon filament is incredibly hygroscopic and can absorb more than 10% of its weight in water in less than 24 hours. Filament should be stored in a dry place at room temperature. Storage time should not exceed twelve months. Material from open or damaged containers should be dried in a dryer at 75 to 80ºC for 6 to 8 hours. After drying, either immediately print with it in a room that isn't cold or drafty or store it in an airtight container with desiccant to use for later.

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Properties [1]	Conditions	Unit	Value	Method
Stress at yield	MD	MPa	34	ISO 527-3
Stress at break	MD	MPa	96	ISO 527-3
Elongation at break	MD	%	350	ISO 527-3
Trouser tear resistance	MD	N/mm	25	ISO 6383-1
Haze	Chill roll temperature 90ºC	%	≤5	ASTM D1003
	Chill roll temperature 50ºC		≤0,5	
Dynamic coefficient of friction	Film/Steel	-	≤0,25	ISO 8295
O_2 transmission rate, 23ºC	0% RH	cc/m^2.d.atm	25	ASTM D3985
	50% RH		15	
	85% RH		40	
Moisture vapor transmission rate, 23ºC	85% RH	g/m^2.d	15	ISO 15106-1

Note: All recommendations are based on knowledge and experience. The values have been established on standard tests. The figures should be regarded as guide values and not as binding minimum values. As many factors may affect processing or applications, we recommend that you make tests to determine the suitability of a product for your particular use.