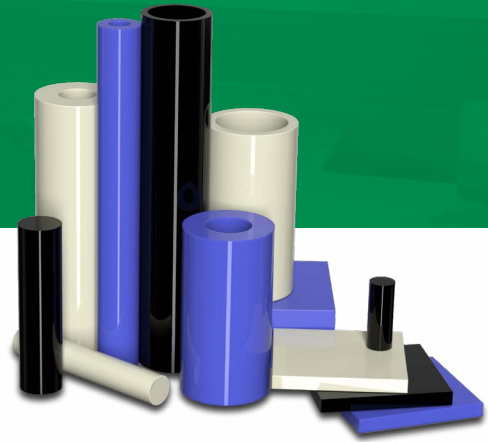


# TECHNICAL SHEET



## NYLON



<b>Equivalence:</b>	ASTM D6779 – 17			----	----	----	----	----
<b>Additives:</b>	Natural	MoS <sub>2</sub>	Mineral Oil	----	----	----	----	----
<b>Color:</b>	White / Blue	Black	Green	----	----	----	----	----
<b>Mechanical properties</b> (approx. at room temperature):	<b>Density, g/cm<sup>3</sup></b>		<b>Tensile strenght, MPa (ksi)</b>	<b>Elastic modulus, MPa (ksi)</b>		<b>Impact resistance, kJ/m<sup>2</sup> (Charpy test) )</b>		
	1.12 – 1.14		75 (10.8)	2,400 (348.0)		4.0		
<small>• The values indicated are minimum estimates, they are not mandatory, and should only be taken as reference for the general characteristics of nylons according to ASTM D6779 - 17. • Special values should be consulted and agreed upon with the manufacturer.</small>								

### CHARACTERISTICS

- One of its main characteristics is high tensile strength, impact resistance, and fatigue resistance. This makes it suitable for applications requiring parts that can withstand heavy loads or vibrations. For example, it is used in gears, bearings, and bushings.
- It has high abrasion resistance, especially in its self-lubricated form. Ideal for applications where parts are exposed to severe wear.
- It is a material that can be easily machined, making it suitable for parts that need to be manufactured in high volumes.
- It has good wear and friction resistance, especially when additives are added. Making it suitable when parts need to slide smoothly against each other or have a lot of contact.
- One of the advantages of self-lubricated nylon is that

it reduces friction between contacting surfaces. This reduction in friction prolongs the life of the parts by decreasing the amount of wear they experience.

- Self-lubricating materials also help reduce noise and vibrations. This is because they reduce friction between surfaces, making movement smoother.
- One of the advantages of nylon over other non-plastic materials is its lightweight, which helps reduce the weight of components, its low cost, and its processing, as it is easy to work with and process.

### APPLICATIONS

Due to its excellent balance of toughness and wear resistance, nylon is used in a wide range of applications, including bearings, gears, sliders, guides, impact tools, wheels, etc.

Nylon is found in a broad spectrum of industries, including automotive, metalworking, goods and services, construction, electronics, and more.

## NYLON

- **Automotive Industry:** Used as bearings in assembly parts to reduce friction and wear, and also as injection-molded parts inside the vehicle.
- **Metalworking Industry:** Used in gears of machined parts.
- **Goods and Services Industry:** Used as auxiliary parts in assemblies and fabrications. For example, as a hammer to avoid damaging mechanical parts that need to be forcefully placed in an assembly.
- **Construction Industry:** It can be found as fasteners, screws, gaskets, or plugs to secure components in constructions.



Bearing in an assembly part of a car



Gears in a mechanical system



Nylon hammer to prevent damage to metal parts



Nylon screw

The data provided here is based on current knowledge and aims to provide general information and guidance, as well as its fields of application; therefore, it should not be considered a guarantee of functionality in any type of application