

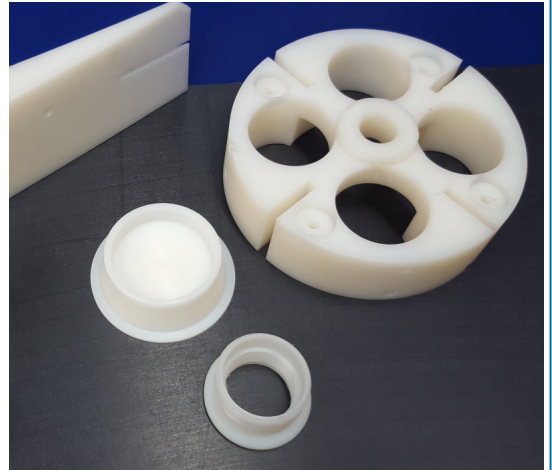
## Technical Data Sheet

### Nylon 6.6 Sheet & Rod

Natural/Black

Nylon 66E improved wear resistance, hardness and higher strength compared to 6E. In addition nylon 66 has a higher melting point and reduced water absorption rate, which results in higher precision on machined parts.

Furthermore, this grade is FDA approved. However, impact strength is reduced compared to 6e. With the addition of MOs2 additive, nylon 66 black (and grey) shows improved wear and abrasion resistance, lower coefficient of friction and reduced moisture absorption.



#### product information

Name: Polyamide 66  
Other names: Centromid 6.6, Ertalon 66 SA  
Abbreviation: PA 66, Polyamide

#### key characteristics

- Higher mechanical strength, stiffness, heat and wear resistance than Nylon 6
- Machines and cuts better than Nylon 6
- Food compliant

#### applications

##### Gears

- Nuts
- Valve seats
- Bushes
- Electrical insulators
- Screws
- Bearings
- Gaskets

PLASTICS



Certificate Number: 14352  
ISO 9001



Care should be taken in selecting the most suitable quality for each application. Advice is available, but final responsibility remains with the customer.

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## Nylon 6.6 Sheet & Rod

### Physical Properties

	Test	Unit	Result
1. Specific gravity	ISO 1183	g/cm <sup>3</sup>	1.14
2. Water absorption	ISO 62	%	8
3. Maximum service temp. Upper temp limit (no stronger mechanical stress involved)	-	°C	95
Lower temp limit	-	°C	-30

### Mechanical Properties

	Test	Unit	Result
1. Tensile stress at yield	ISO 527	Mpa	90
2. Elongation at yield	ISO 527	%	-
3. Tensile strength at break	ISO 527	Mpa	-
4. Elongation at break	ISO 527	%	>40
5. Impact strength	ISO 179	kJ/m <sup>2</sup>	no break
6. Notch impact strength	ISO 179	kJ/m <sup>2</sup>	6
7. Ball Indentation/Rockwell hardness	ISO 2039-1	Mpa	160/M85
8. Shore-D	DIN 53505	-	-
9. Flexural strength	ISO 178	Mpa	2800
10. Modulus of elasticity	ISO 527	Mpa	3100

### Thermal Properties

	Test Method	Unit	Result
1. Vicat-softening point VST/B/50	ISO 306	°C	-
2. Heat deflection temperature HDT/B HDT/A	ISO 75	°C	-
	-	°C	85
3. Coefficient of linear thermal expansion	ISO 11359	K <sup>-1</sup> x10 <sup>-4</sup>	0.8
4. Thermal conductivity at 20 °C	DIN 52612	W/(m*K)	0.28

### Electrical Properties

	Test Method	Unit	Result
1. Volume resistivity	VDE 0303	Ω x m	10 <sup>12</sup>
2. Surface resistivity	-	Ω	10 <sup>13</sup>
3. Dielectric constant at 1MHz	-	-	3.3
4. Dielectric loss factor at 1 MHz	DIN 53483	-	0.026
5. Dielectric strength	VDE 0303	kV/mm	27
6. Comparative tracking index (CTI)	IEC 60112	-	600

### Additional Data

	Test Method	Unit	Result
1. Bondability	-	-	+
2. Food compliance (Natural Only)	FDA	-	+
3. Flammability	UL94	-	V-2

All The above information is for guide purposes only. The data has been taken from standard test results provided by our manufacturers.

Key

Yes

+

Limited

0

No or no data

-



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