



S H A P I N G   T H E   F U T U R E



P O L Y M E R S

P O L Y A M I D E 6 . 1 0



# MOBILIZING EXPERTISE FOR DEMANDING APPLICATIONS

## CUSTOMIZED SOLUTIONS FOR HIGH-QUALITY POLYMERS

Nexis Fibers is the European leader in the manufacturing of high-quality yarns, fibers and specialty polymers. Its products are used in the most demanding applications:

- Monofilaments: PMC (Paper Machine Cloths), fishing lines, filters, abrasives, brushes;
- Plastic compounds: automotive, electrics/electronics, medical industry, industrial consumer goods.

### Providing added value

- **The high quality standard** of our PA 6.10 is secured by the usage of well-specified raw materials and a strictly controlled polymerisation process. Certified as ISO TS 16949, we offer 100% traceability;
- We offer different types of 6.10 polymers with variable levels of viscosity and have the capability **to develop tailor-made solutions on request**;
- We have a dedicated and experienced team **with established expertise in the polymerization process**, providing solid technical support to enable customers to create new products with PA 6.10.

### Various types of Polymers

Nexis Fibers offers the following standard range of PA 6.10 types:

Type	Remark	Viscosity ISO-Std. 307 [ml/g]	Moisture [%]	Melting point [C°]	Solidification point [C°]
7020	raw	134	0.3	215	185
7030	dried	138	< 0.07	215	185
7040	post-condensated	189	< 0.07	215	177
7050	post-condensated	223	< 0.07	215	177



## Key technical properties provided by PA 6.10 to final applications

PA 6.10 provides outstanding properties for applications in very diverse areas:

- **Mechanical properties**, including high abrasion resistance, low moisture absorption and good stiffness are key features for applications such as PMC, bristles and fishing lines;
- **Physical properties**, including low shrinkage, low melting points and excellent dimensional stability are important points for the production of precision instruments;
- **Chemical properties**, including high resistance against halogenated hydrocarbons and polar solvents are highly appreciated in the industrial and automotive sectors.

## Key technical advantages of PA 6.10 versus other polyamides and polyester

	Unit	PA 6	PA 6.6	PA 6.10	PA 6.12
Density	g/cm <sup>3</sup>	1.14	1.14	1.07	1.07
Melting point	°C	215	265	215	212
Dimensional stability under heat according ISO-R 75, test A	°C	90 / 190	100 / 200	90 / 190	70 / 160
Application temperature limit - short cycle operation - up to 5'000 h - up to 20'000 h	°C	180 115 - 130 95 - 115	200 115 - 140 95 - 120	180 ~ 110 ~ 100	155 ~ 110 ~ 100
Moisture absorption (23°C / 50% RH)	%	3.0	2.8	1.4	1.3
Water absorption (23°C / 100% RH) - after 24 hours - at saturation	%	1.6 9.5	1.5 8.5	0.4 3.3	0.4 3.0
Elongation at break	%	50	45	50	150
Module of elasticity (in tension)	N/mm <sup>2</sup>	3000	3200	2400	2000
Ball indentation hardness (30 s)	N/mm <sup>2</sup>	150	160	120	120

### Polyester Polymers

- Nexis Fibers also offers a wide range of polyester polymers.
- For more information please contact our commercial/technical team.

### Plant

**Emmenbrücke**  
(Switzerland)

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## Marketing and Technical Team

### Commercial Service:

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