



Extruded grades

ERTALON® / NYLATRON®

*natural (white)
 black
 *blue

ERTALON 6 SA

(PA 6)

This material offers an optimal combination of mechanical strength, stiffness, toughness, mechanical damping properties and wear resistance. These properties, together with a good electrical insulating ability and a good chemical resistance make ERTALON 6 SA a “general purpose” grade for mechanical construction and maintenance.

*natural (cream)
 black

ERTALON 66 SA

(PA 66)

Material with a higher mechanical strength, stiffness, heat and wear resistance than ERTALON 6 SA. It also has a better creep resistance but its impact strength and mechanical damping ability is reduced. Well suited for machining on automatic lathes. Please note that the ERTALON 66 SA natural rods over dia. 150 mm are made from a modified polyamide 66 resin (see the property values given on page 14 under ERTALON 66 SA-C).

reddish brown

ERTALON 4.6

(PA 4.6)

Compared with conventional nylons, ERTALON 4.6 features a better retention of stiffness and creep resistance over a wide range of temperatures as well as superior heat ageing resistance. Therefore, applications for ERTALON 4.6 are situated in the “higher temperature area” (80 - 150° C) where stiffness, creep resistance, heat ageing resistance, fatigue strength and wear resistance of PA 6, PA 66, POM and PET fall short.

grey-black

ERTALON 66-GF30

(PA 66-GF30)

Compared with virgin PA 66, this 30% glass fibre reinforced and heat stabilised nylon grade offers increased strength, stiffness, creep resistance and dimensional stability whilst retaining an excellent wear resistance. It also allows higher max. service temperatures.

grey-black

NYLATRON GS

(PA 66 + MoS₂)

The addition of MoS₂ renders this material somewhat stiffer, harder and dimensionally more stable than ERTALON 66 SA, but results in some loss of impact strength. The nucleating effect of the molybdenum disulphide results in an improved crystalline structure enhancing bearing and wear properties.



TECH NOTES: Nylons can absorb up to 9% by weight of water under high humidity or submerged in water. This results in dimensional changes and a corresponding reduction of physical properties. Proper design techniques can frequently compensate for this factor.

gears



Challenges: Metal gears create noise, wear mating parts and require lubrication.

Solution: Gears machined from ERTALON / NYLATRON nylons can solve these problems.

Benefits: ERTALON / NYLATRON gears can reduce noise, eliminate the need for lubrication and act as a sacrificial link in a system, thus saving destruction of other costly components.

insulating washers



Challenges: In electrical switch-cupboards the temperature can rise up to 100°C. To protect the box against short-circuit, plastic washers are required. At higher temperatures, however, unreinforced plastics become more sensitive to creep.

Solution: In order to minimise creep, the insulating washers are made of ERTALON 66-GF30 which, due to its glass fibre reinforcement, loses less of its stiffness and creep resistance at elevated temperatures.

Benefits: Good retention of mechanical properties at elevated temperatures in combination with good electrical insulating properties.