

► POLYETHYLENE AND PLASTIC NYLON RANGE

The plastic does not exist naturally : it is a synthetic product. It exists two families:

The thermoplastics : they are going soft at a very high temperature and they get harder during the cooling down

The heat-hardening ones : they are heat resistant but they can be destroy without melting if the temperature is too high
Leurs avantages

Their advantages:

- 7x less heavy than steel : weight and mass gain
- Heating, mecanic and chemical resistance
- Excellent electric insulation
- Recycling enables a chimic reuse or an energetic upcycling
- Stainless : freshwater, seawater, salt fog...
- Remove the corrosion risk
- Reduce the seizing risk

► POLYAMIDE PA 6.6. : COMMERCIAL DESIGNATION «NYLON»

A polyamide is a polymer with the fonction $N-H-C=O$, it results from the reaction of an acid and an amino acid. Thickness/density = $1,14\text{ g/cm}^3$.

Heating characteristics :

- Fusion point : 255 C°
- Maximum temperature of continually use : 120 C°
- Minimum temperature of use : -30 C°

cold water	warm water	diluted acids	concentrated acids	oxydant acids	organic acids	hydrofluoric acids	amino acids
ether	turpentine	mineral oils	alcohol	petrol	fat, oils	ester	Ketone

► PE-HD : POLYETHYLENE HIGH DENSITY DESIGNATION

The PE-HD is made by a catalized cationic polymerization catalysée of the ethylene.

Thickness/density = $0,95\text{ g/cm}^3$.

Heating characteristics :

- Fusion point : 135 C°
- Maximum temperature of continually use: 80 C°
- Minimum temperature of use : $-40\text{ C}^\circ\text{h}$

cold water	warm water	diluted acids	concentrated acids	oxydant acids	organic acids	hydrofluoric acids	amino acids
ether	turpentine	mineral oils	alcohol	petrol	fat, oils	ester	Ketone



Good resistance



Limited resistance



Non resistant