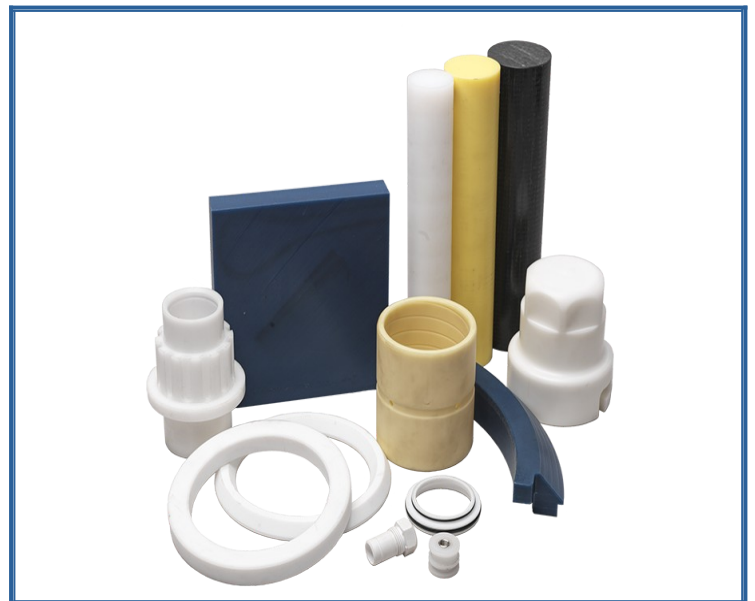




# Industrial Plastics

# TYPES OF PLASTIC

- **POLYAMIDE 6 (PA 6)**
- **POLYAMIDE 6 MO (PA6 MO)**
- **POLYAMIDE 6.6 (PA 6.6)**
- **POLYPROPYLENE**
- **POLYACETAL (POM C)**
- **TEFLON (PTFE)**
- **POLYETHYLENE**
- **PVC**



## **POLYAMIDE 6 (PA 6)**

Polyamide 6 is the most common extruded polyamide and offers a balanced combination of all typical characteristics of this group of materials. Damping properties and impact strength of the material deserve to be emphasized as much as high toughness even at low temperatures. Good abrasion resistance, particularly against mating parts with rough surfaces, completes the typical performance package. Compared to the cast nylon type PA 6C, Nylon 6 has higher moisture absorption, is less wear resistant and is slightly less dimensionally stable. There is also a limit to the size of semi finished products and the unit weight which can be achieved due to the limitations of the extrusion process. However, good mechanical strength combined with high chemical resistance makes polyamide 6 a classic material used universally for mechanical applications in tough hostile environments, as long as dimensional tolerances are not critically tight.

**\*AVAILABLE IN : WHITE & BLACK – RODS & PLATES\***



## **POLYAMIDE 6 MO (PA6 MO)**

Nylon PA6 MO, a nylon engineering plastic, is designed to stand up to the test. This is a product which offers hardness, rigidity and stiffness in equal measure. It also is sought after due to its high absorption of moisture (of up to 3% in standard atmosphere), high mechanical strength, plus good resistance to UV. Typical areas of application include:

- Mechanical engineering
- Materials handling industry
- Aircraft construction

**\*AVAILABLE IN : BLACK – RODS & PLATES\***



## POLYAMIDE 6.6 (PA 6.6)

**Polyamide 6.6** is a polymer of petrochemical origin that is extremely inexpensive and versatile and has **good chemical resistance to fats, hydrocarbons, lubricant oils** etc. It has lower resistance to acids, bases, oxidizing reagents, and saline solutions. Polyamide 6.6 shows water absorption values of up to 9%. **The moisture on the inside of the polyamide acts as a plasticizer**, causing the mechanics to vary depending on the quantity absorbed. An increase in absorbed moisture improves the **tenacity and the resilience** of the material (impact resistance) with a resulting reduction of the Elastic Modulus and the rigidity of the material. Polyamide 6.6 exhibits good thermal properties and **resistance to thermal ageing**. Particular attention should be paid to the dimensional variation resulting from the absorption of moisture.

**\*AVAILABLE IN – WHITE - RODS\***



# **POLYPROPYLENE**

Polypropylene (PP) is one of the most commonly used thermoplastics in the world. Polypropylene uses range from plastic packaging, plastic parts for machinery and equipment and even fibres and textiles. It is a rigid, semi-crystalline thermoplastic that was first polymerised in 1951 and is used widely today in a range of domestic and industrial applications. Today, global demand for polypropylene is estimated at around 45 metric tons and this figure continues to rise exponentially.

Polypropylene has a slippery, tactile surface, making it ideal for:

- plastic furniture
- low friction applications, such as gears in machinery and vehicles.

It is highly resistant to chemical corrosion, making it an excellent choice for packaging for:

- cleaning products
- bleaches and
- first-aid products

**\*AVAILABLE IN WHITE RODS\***



## **POLYACETAL (POM C)**

Acetal (POM) is known for its high mechanical resistance and good anti-friction properties. As moisture absorption is almost zero, dimensional accuracy and stability are higher than with POLYAMIDE 6. The physical properties of polyacetal (industrial plastic) remain unchanged in different environments. This material is produced as; natural, and in black color SW, using copolymer resin. Homopolymer Acetal is available on special request.

Typical applications of POLYACETAL (POM C):

- Gears
- Levers
- Springs
- Switches
- Clamps
- Pump parts
- Mud handling equipment
- Electronic and office machinery.

Acetal is also used for all underwater applications.

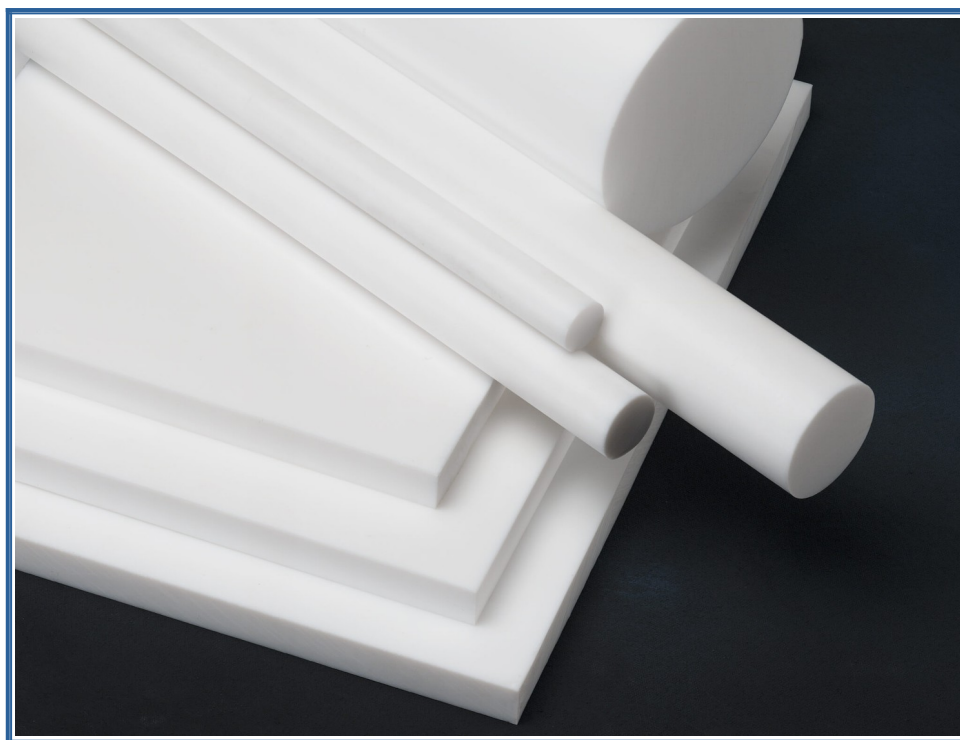
**\*AVAILABLE IN : WHITE & BLACK – RODS & PLATES\***



## **TEFLON (PTFE)**

With its physical and thermal characteristics, Teflon covers all known industrial plastic materials (dynamic and static coefficients similar to iron  $n=0.04$ ). Teflon is widely used in mechanical engineering, electrical and chemical industry, it is used for manufacturing sealing elements, insulators, sliding elements, bearing guns, etc. Its characteristics do not change at high and low temperatures as well as pressures. PTFE is temperature resistant. -200 to + 260 oC and remains elastic. Teflon is resistant to the influence of chemicals.

**\*AVAILABLE IN WHITE RODS & PLATES\***

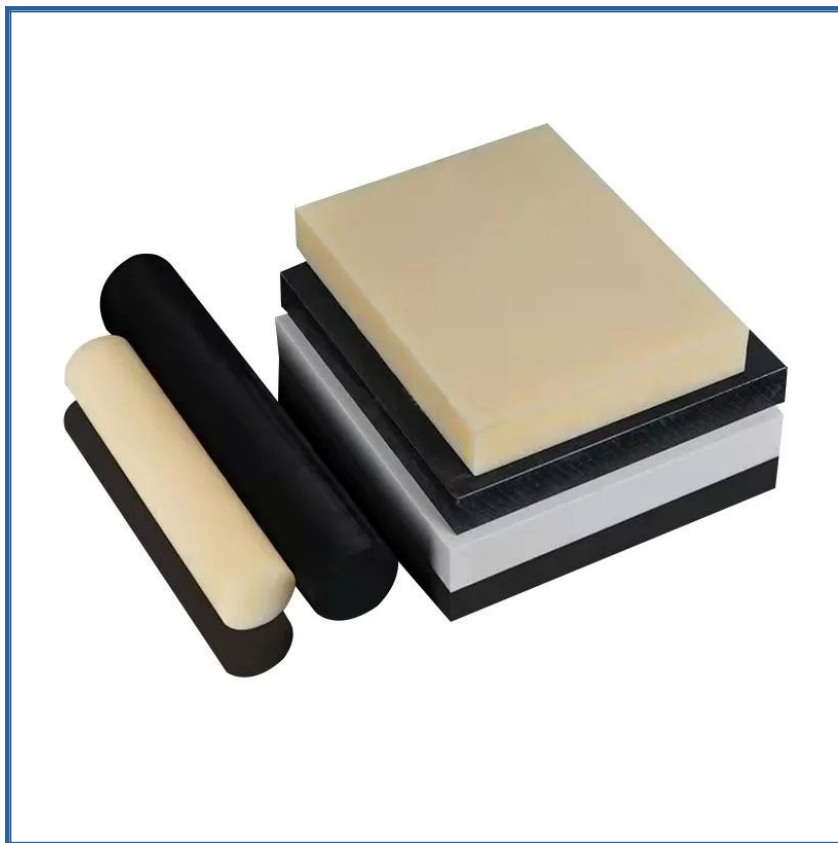




# **POLYETHYLENE**

Polyethylene, also known as polythene or polyethene, is one of the most commonly used plastics in the world. Polyethylenes usually have a linear structure and are known to be addition polymers. The primary application of these synthetic polymers is in packaging. Polyethelyne is often used to make plastic bags, bottles, plastic films, containers, and geomembranes.

**\*AVAILABLE IN : BLACK – RODS & WHITE PLATES\***

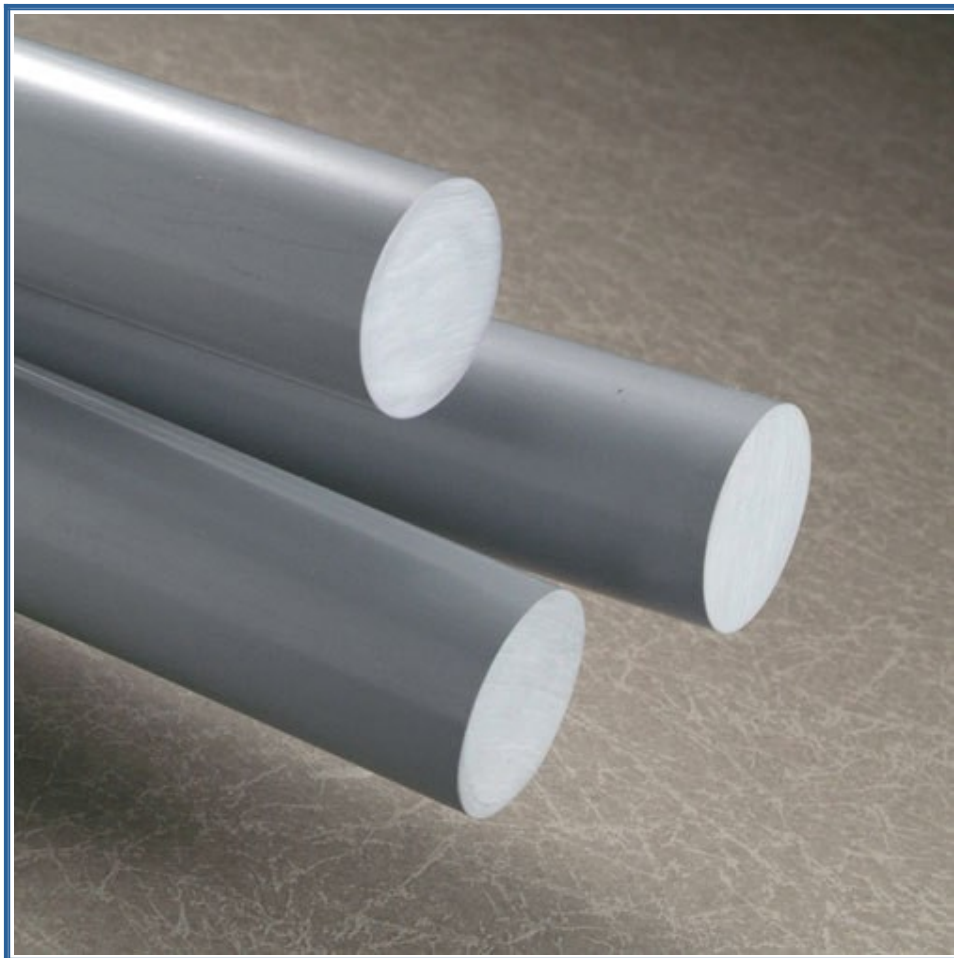


## **PVC**

Polyvinyl Chloride (PVC or Vinyl) is an economical and versatile thermoplastic polymer. It is widely used in the building and construction industry to produce door and window profiles. It also finds use in:

- Drinking & wastewater pipes
- Wire & Cable Insulation
- Medical devices , ETC.

**\*AVAILABLE IN GREY RODS\***





**DELIVERY TIME ON ALL ORDERS : 2 – 7 DAYS AFTER CONFIRMATION.**



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