One-stop manufacturer of Semi-finished Engineering Plastics

ESD/Anti-static Plastic & Material

Plastic Extrusion Profiles

Thermosetting Plastic

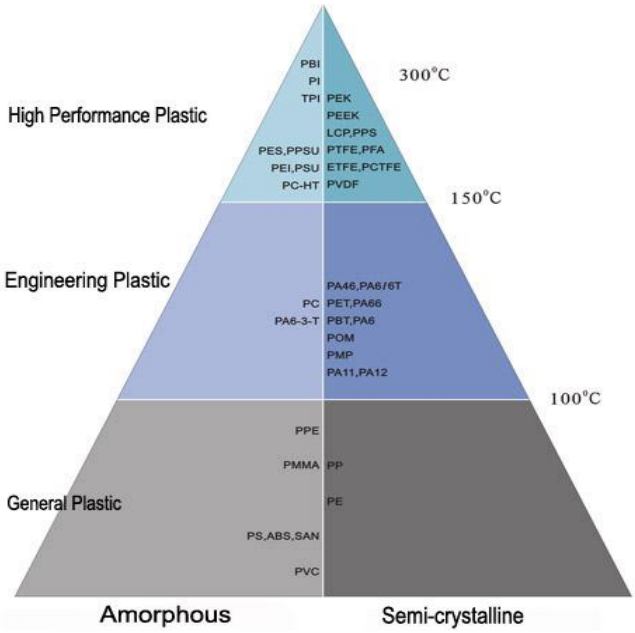
Plastic Parts

www.energetic-industry.com

What we do?

ENERGETIC Industry Established in 2010, a professional 1-stop manufacturer of Semi-finished Plastics, Plastic extrusions, machining parts.

- ✧ **High Performance Plastic:** can be long-term used in the temperature higher than 150 °C, has excellent temperature mechanical properties, high comprehensive performance.
- ✧ **Engineering Plastic:** can be long-term used in the temperature range of 100 °C to 150 °C. They have good mechanical properties and chemical resistance.
- ✧ **Thermosetting Plastic:** can be solidified or insoluble(can not melt) properties when under heat or other conditions, good mechanical strength, higher work temperature and good dimensional stability.
- ✧ **General Plastic:** work less than 100 °C, mainly for civil use.
- ✧ **ESD/Anti-static Plastic & Material:** Carbon powder or graphite, antistatic agent modified plastics, some of them can work under high temperature.



ENERGETIC Customized Services

With a capable machining team and comprehensive knowledge of materials, advanced mechanical engineers and facilities, Energetic Industry can offer our client comprehensive plastic machining services & custom plastics services.

We found it is a effective way to help our clients, we already get good cooperation with USA national Fermi Lab, and lots of electronic & electric, agricultural machinery making clients. We sincerely hope can be the help for our coming clients too.

We can plastic fabrication parts based on your idea, not only based on for material choosing, but also property requirements custom.

1. Customized material

Materials Available	**General Plastic:** HDPE, PP, PVC, ABS, PMMA(Acrylic) ect.
	Engineering Plastic: POM, PA6, MC nylon, Nylon 66, PTFE, UHMWPE, PVDF ect.
	High Performance Plastic: PPS, PEEK, PI, PEI ect.
	Thermosetting Plastic: Replacement Durostone, Ricocel sheet, G10, FR4, Bakelite ect.
	Spcial Plastic Material: Plastic +GF/CA/Oil/Brone/Graphit/MSO2/ceramic ect.
	Spcial Plastic Plastic Alloy: PE+PA, PP+PA, POM + PTFE ect.
	Some Metals: Carbon Steel, SS Steel, Brass, Iron, Bronze, Aluminum, Titanium
	Special parts: Metal + Plastic Combined Part

2. Customized property

- Customized ESD
- Conductive
- Hardness
- Wear resistance
- Fire-resistant
- Corrosion resistance
- Impact strength
- Work temperature
- UV resistant ect.

3. Customized shape by drawing

Various of plastic parts:

Gear, rollers, wheels, base part, spacers, blade, liner, rack, bearings, pulley, bearing sleeves, linear guide rail, sliding block, guide channel, spiral, washer, positioning strip, joint, sheath, lining plate, retaining ring, slot, skating board, frame, cavity parts, SMT jig and fixture, PCB solder pallet, profiles.
Molds, cavity, Radiator fin, prototype, outermost shell, fittings and connectors, screws , bolt ...

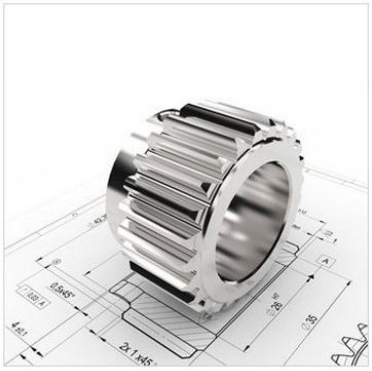
Further services of CNC machining:

Processing: CNC machining, CNC milling and turning, drilling, grinding, bending, stamping, tapping, injection
Surface finish: Zinc-plated, nickel-plated, chrome-plated, silver-plated, gold-plated, imitation gold-plated

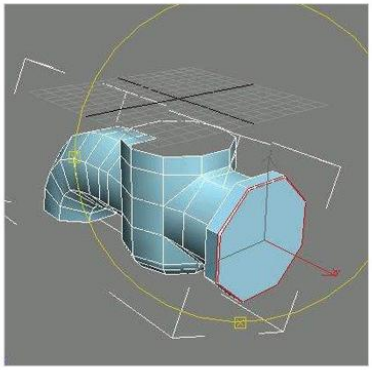
Other Information:

Tolerance: +/-0.1~0.2mm for plastic, 0.05mm~0.1mm for metal
Drawing format : CAD / PDF/ DWG/ IGS/ STEP

1) CAD: dwg, dxf, pdf



2) 3D Model Format: .step, igs, x_t, prt ect.



Send us drawing with requirement information which include material, quantity, surface request to get quotation right away.

Cut into Size

Plastic Machining

Profiles Extrusion

Injection Plastic

Metal Machining

SMT Jig & Fixture

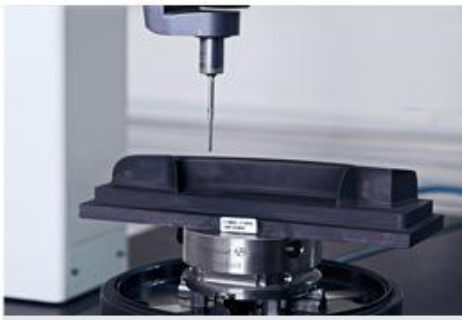
ADVANTAGES

Material Research

Keeping checking and researching all posiblity materials to reach customer's application request.

Machining Speed

Short machining lead time, as we always keep regular material and some frequent needed spcial material in stock.



Tight Tolerance

Tolerance can be +/-0.02-0.2mm according to different material.

No MOQ

Minimum order quantity is not required based on full stock of material.

Machining Ability

Strong maching ability, about 10-years experienced fabrication experience, numbers of advanced automatical mechanical equipments.

Competitive Price

Competitive price with 1st class quality material and 1st machining ability from China.

- About 10 years for CNC machining experience
- Full of material stock of metals and plastics
- Provide 2D & 3D drawing for modifying
- Competitive price with good quality
- Small order is acceptable
- Short delivery time (7-25days according to order Qty)
- Seaside city, convenient transportation
- Customized size and specification /OEM available

Application Field:

- ✓ Electronic and electrician
- ✓ Physical and Electronic Science Research
- ✓ Mineral and coal
- ✓ Food processing
- ✓ Medical device industry
- ✓ Semi conductor, solar, FPD industry
- ✓ Oil & Gas
- ✓ Aerospace
- ✓ Textile printing & dyeing industry
- ✓ Analytical instrument industry
- ✓ Automobile
- ✓ Machinery and other industrial
- ✓ Automotive industry

Acrylonirile Butadiene Styrene/ABS Sheet & ABS Rod

Trade names:	Acrylonirile Butadiene Styrene, ABS
Available Shapes:	Sheets, Rods
Color:	Natural Beige, Black, other
Sheets Thickness:	0.3mm ~ 200mm
Rods Diameter:	0.5mm ~ 300mm
Similar plastics:	HIPS

ABS Brief Introduction:

ABS is formed by the polymerisation of styrene and acrylonitrile on to thermoplastic rubber which is then melt compounded with styrene acrylonitrile. ABS sheets can be processed with ease and versatility. They can be machined, turned, drilled, milled, sawed, bored, die-cut, routed and sheared using high speed carbide-tipped tools. ABS can be machine finished by filing, grinding, sanding, buffing and polishing.

Advantages:

The combinations of the copolymers gives ABS sheet excellent surface appearance that is scratch resistant and available with smooth or textured surface. It has stronger, stiffer and tougher properties than high impact polystyrene (HIPS). ABS sheets also have superior resistance to high temperatures and chemicals than HIPS. ABS is a light and rigid material used in a variety of products.

Applications:

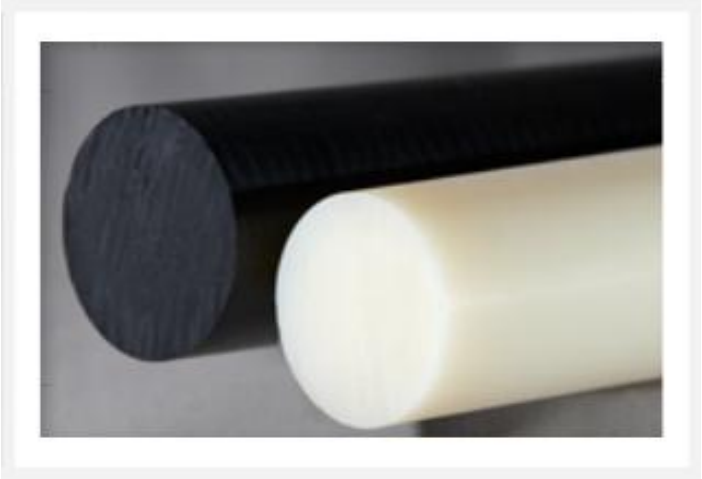
- Automotive interior and exterior
- Aircraft interior trims
- Home appliances
- Architectural model buildings & Prototype Models
- Luggage
- Machine parts and rollers
- Pipes & fittings

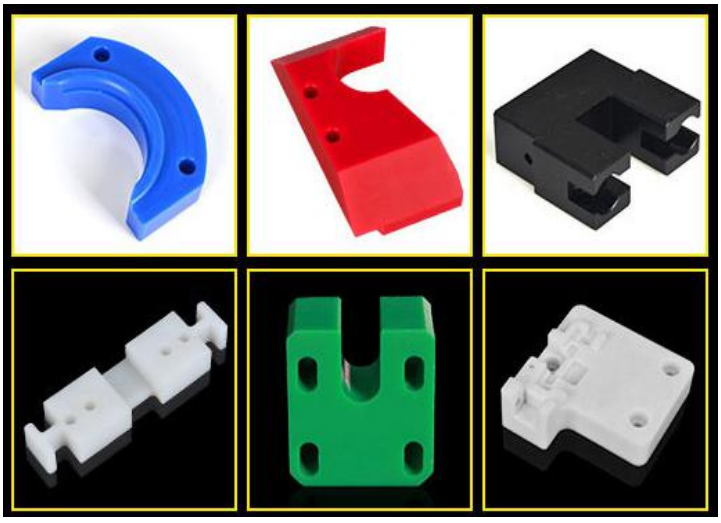
Key Features:

- High rigidity and impact strength
- Excellent abrasion resistance
- Excellent electrical properties
- Moisture and creep resistance
- Work temperatures -50℃ to +70℃
- Good chemical and stress cracking resistance to inorganic salt solutions, alkalis and many acids (Except strong oxidizing acids)
- Close tolerances, is tough, stable dimension

High Density Polyethylene/HDPE Sheet & HDPE Rod

Trade Name:	High Density Polyethylene, HDPE
Available Shapes:	Sheets, Rods
Color:	Natrual white, Black, other
Sheets Thickness:	0.3mm ~ 200mm
Rods Diameter:	20mm ~ 300mm
Similar plastics:	PP





HDPE Brief Introduction:

HDPE sheet & Rod offers excellent impact resistance, light weight, low moisture absorption, and high tensile strength. HDPE is non-toxic and non-staining, can be used on food processing.

HDPE Sheet & Rod is light and easy to machine to help improve machining times. It is very tough and almost impossible to break which helps produce components that are tough and can stand up to a lot of punishment in high impact environments.

Advantages:

- Excellent chemical resistance and corrosion resistant.
- Good Fatigue & Wear Resistance
- Resists organic solvents, degreasing agents & electrolytic attack.
- Foodsafe
- Great cutting board material.

Key Features:

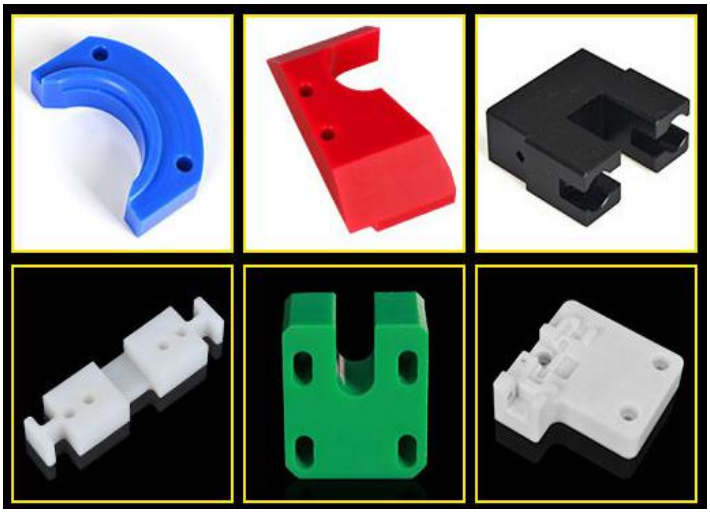
- High tensile strength
- Lightweight
- Thermoforming performance, work temperature -50℃ to +90℃.
- No moisture absorption
- Non-staining
- Non-Toxic

Applications:

- Cutting Boards (Natural (White) Sheet only)
- Tanks
- Orthotics and prosthetic devices
- Trays
- Water storage
- Light duty chain guides
- Secondary containment

Polypropylene/PP Sheet & PP Rod

Trade names:	Polypropylene, PP
Available Shapes:	Sheets, Rods, Tubes
Color:	Natrual white, Black, other
Sheets Thickness:	0.3mm ~ 200mm
Rods Diameter:	10mm ~ 300mm
Similar plastics:	HDPE



PP Brief Introduction

The non-polar structure of Polypropylene Sheet and Rod gives it a very high molecular mass. This makes PP Sheet and Rod highly resistant to chemicals and to aqueous solutions of salts, acids and alkalis.
Polypropylene homopolymers have a high level of stiffness and toughness at room temperature. This together with their capacity to repel water makes them a good choice for mechanical and structural applications.

Advantages:

Polypropylene Sheet properties ensure that this material is a hard, stiff, easily workable material with excellent toughness and available in Polypropylene Sheet, Rod, Tube and Polypropylene Weld Rod.

It is an easily weldable thermoplastic which makes it ideal for tanks, fittings and vessels for the mineral processing, mining and galvanising industries.

Key Features:

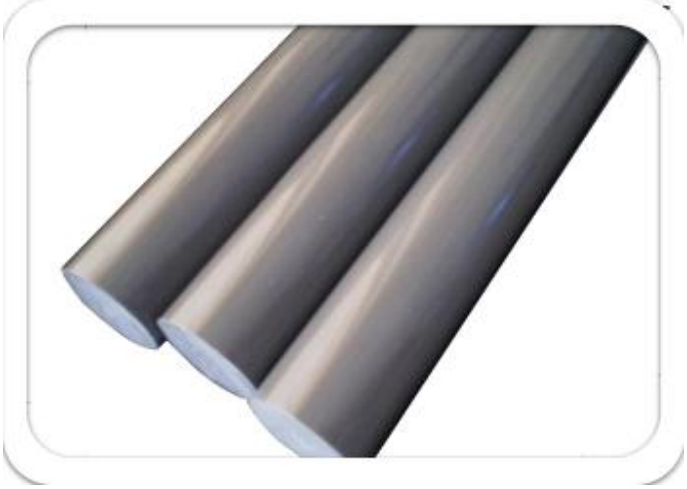
- Very high chemical resistance
- Excellent impact resistance
- Higher scratch resistance than HDPE
- Thermoformable
- Work temperature between +5℃ and 100℃
- Excellent moisture resistance
- Food grade

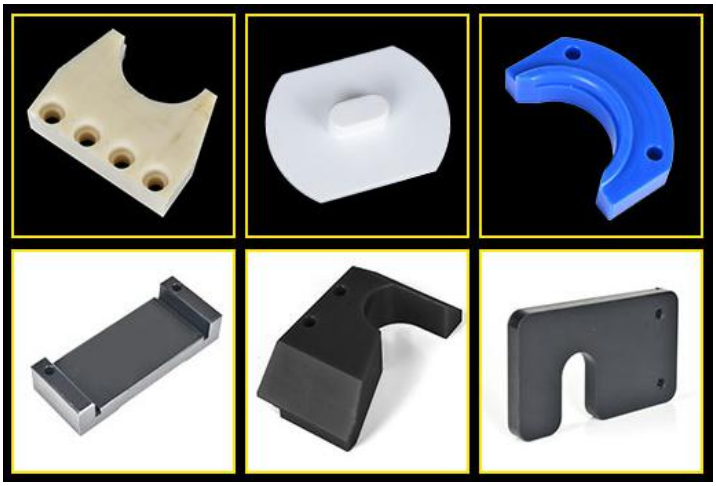
Applications:

- Food or corrosive storage vessels
- Cooling or scrubbing towers
- Pump bodies and components
- Wall cladding
- Plating tanks and hoods
- Bench tops, etc.

Polyvinyl Chloride/PVC Sheet & PVC Rod

Trade names:	Polyvinyl Chloride, PVC
Available Shapes:	Sheets, Rods
Color:	Natrual grey, other
Sheets Thickness:	0.3mm ~ 80mm
Rods Diameter:	15mm ~ 160mm
Relative Plastics:	CPVC (Grey), Clear PVC





PVC Brief Introduction

Plastic material Polyvinyl Chloride (PVC) is a major thermoplastic material and comes in many different forms, most notably in PVC sheet and PVC rod form. These different forms modify the properties to suit particular applications. Plasticisers, stabilisers and impact modifiers can be added to produce these modifications.

In general, PVC is light, water resistant, offers a long life cycle and does not require much maintenance. These excellent qualities makes PVC one of the most commonly used plastics today.

Advantages:

High rigidity and strength compared to other plastics
Formable and machinable.

Key Features:

- Excellent electrical insulating properties
- Very high chemical resistance
- Thermoformable
- Work temperature 0℃～+70℃.
- Moderate impact resistance
- Very good moisture resistance
- Good dimensional stability
- Bondable
- Self extinguishing

Applications:

- Chemical storage vessels
- Tank liners and fittings
- Fume cupboards
- Pump components
- Electrical insulators

CPVC – Grey:

That is PVC (polyvinyl chloride) that has been chlorinated via a free radical chlorination reaction. This reaction is typically initiated by application of thermal or UV energy utilizing various approaches. In the process, chlorine gas is decomposed into free radical chlorine which is then reacted with PVC in a post-production step, essentially replacing a portion of the hydrogen in the PVC with chlorine

POM/Polyoxymethylene/Delrin/Acetal Rod, Acetal Sheet

Trade names:	POM, Polyoxymethylene, Acetal, Delrin, Polyacetal
Available Shapes:	Sheets, Rods, Tubes, Plates
Color:	Natural White, Black, Others
Sheets Thickness:	0.3mm ~ 150mm
Rods Diameter:	2.0mm ~ 250mm
Relative Plastics:	ESD POM, Conductive POM

POM Brief Introduction

Energetic offers copolymer grade of POM Rod, Sheet. is a semi-crystalline material with high strength, a low coefficient of friction and good wear properties especially in wet environments (resistance to hydrolysis).Copolymer acetal also offers better chemical resistance than homopolymer acetal.

Advantages:

POM's great machinability together with its impact fatigue and shock resistance, low coefficient friction, and self-lubricating, dimensional stability, mechanical strength, zero moisture absorption, good dielectric properties, solvent resistance, non-stress cracking, no porosity and good load-bearing properties make it ideal for close-tolerance parts.

Key Features:

- High mechanical strength
- Excellent machinability & dimensional stability
- Good creep resistance
- Very low stick-slip
- Physiologically inert
- Low moisture absorption
- Continuous use at temperature -50℃ to +110℃

Applications:

- Precision gears, springs, wheels, connecting rod, impeller blades
- Bearings with close tolerance
- Electrical engineering insulations
- Snapfit assemblies
- Automobile industry
- Toys, windows, water tanks and so on

Relative Plastic:

- **POM(ESD) – Black**

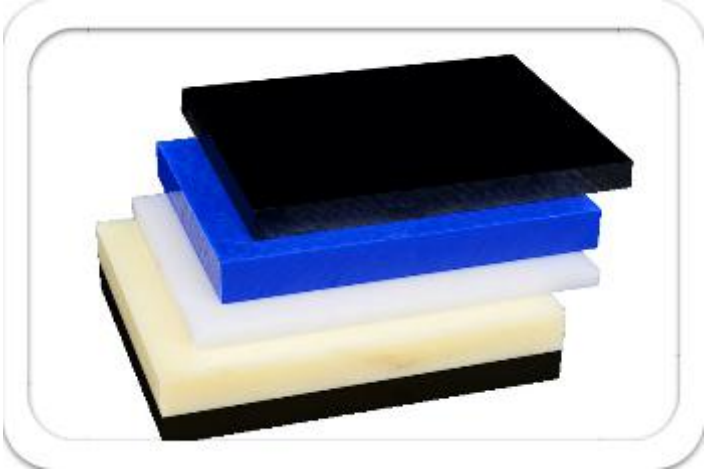
  POM with carbon fiber to reach electrical conductivity Volume resistivity: 10^4—10^6, Surface resistivity: 10^4—10^6

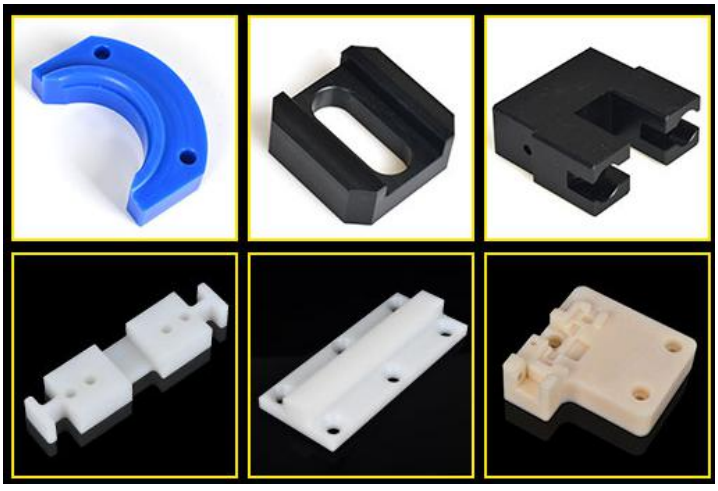
- **POM(Antistatic) - Ivory**

  Volume resistivity: 10^6—10^9, Surface resistivity: 10^6—10^9

Polyamides/PA/Nylon Rod, Nylon Sheet

Trade names:	Polyamides, PA, Nylon
Available Shapes:	Sheets, Rods, Tubes, Plates
Color:	Natural White, Black, Green, Others
Sheets Thickness:	0.3mm ~ 200mm
Rods Diameter:	0.5mm ~ 400mm
Similar plastics:	Acetal, Oil Filled Nylon





Nylon Brief Introduction:

The most common engineering nylons are PA6 and PA66. Nylon stock shapes are produced by either extrusion or casting. The process is in part a determinant of the nylon properties of the end product. Modifiers are added to enhance desirable characteristics.

Advantages:

Nylon Rod and Nylon Sheet are tough, durable, general purpose engineering material with special grades for specialty applications. Typical application conditions would be medium speed and temperature in a rugged, abrasive, impact and high load environment.

Disadvantages:

Poor dimension stability, electrical and mechanical properties, may become affected by absorbing moisture or water, acidproof ability not good, can't dye with acid or touch overmuch acid, weak lightfastness, low endurance in pollution

Key Features:

- Excellent bearing properties
- High impact strength and toughness
- Low power factor requirements
- High wear resistance
- Very good sliding properties

Applications:

- High load bearings
- Wear pads
- Support and Guide wheels
- Conveyor and Tension rollers
- Wire rope sheaves
- Buffer pads
- Gears...

Types of Nylon Plastics

Extruded Nylon 6 (PA 6) - natural (white) / black:

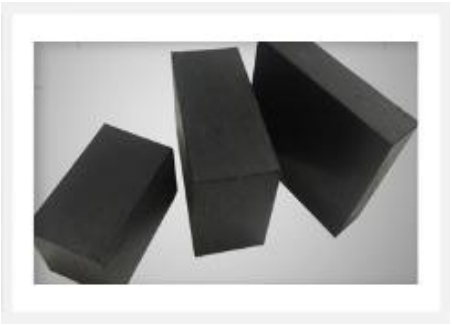
Offers an optimal combination of mechanical strength, stiffness, toughness, mechanical damping properties and wear resistance. These properties, together with a favourable electrical insulating ability and a good chemical resistance make extruded nylon 6 a "general purpose" grade for mechanical construction and maintenance.

MC Nylon 6 (PA 6) - natural (ivory) / black:

Unmodified cast nylon 6 grade exhibiting characteristics which come very close to those of nylon 66. It combines high strength, stiffness and hardness with good creep and wear resistance, heat ageing properties and machinability.

MC Nylon 6 + oil filled (PA6 + oil) - green:

This internally lubricated cast nylon 6 is self-lubricating in the real meaning of the word. Oil filled MC nylon 6, especially developed for unlubricated, highly loaded and slowly moving parts applications, yields a considerable enlargement of the application possibilities of nylons. This because of its reduced coefficient of friction (up to -50%) and improved wear resistance (up to x 10).



Nylon 6 + MOS2 (PA6 + MoS^2) – grey black:

The addition of MoS^2 renders this material somewhat stiffer, harder and dimensionally more stable than nylon 66, but results in some loss of impact strength. The nucleating effect of the molybdenum disulphide results into an improved crystalline structure enhancing bearing and wear properties.

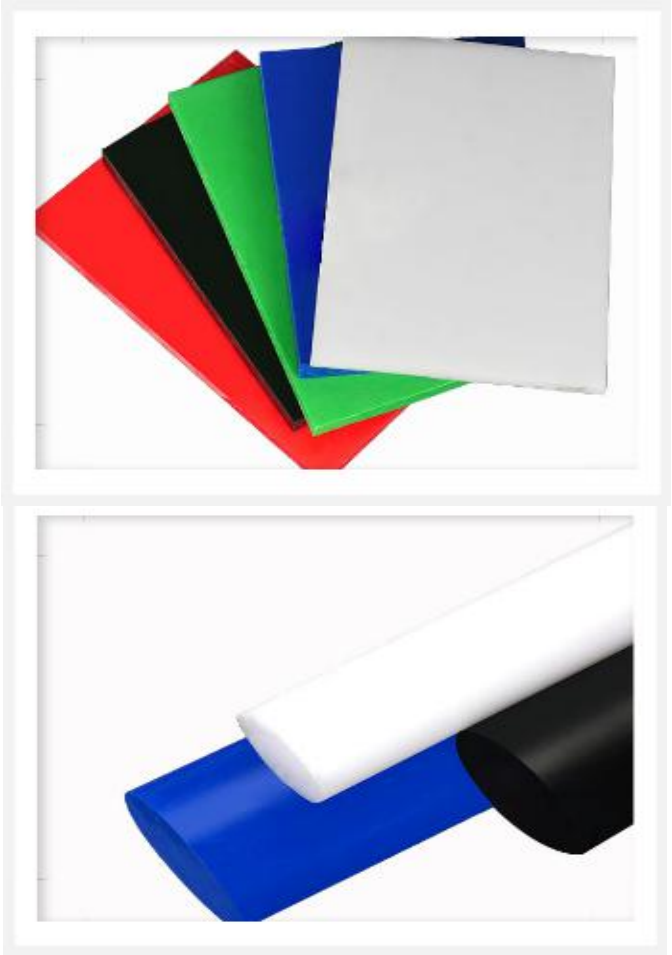
Nylon 6+ GF30 (PA 6-GF30) - black:

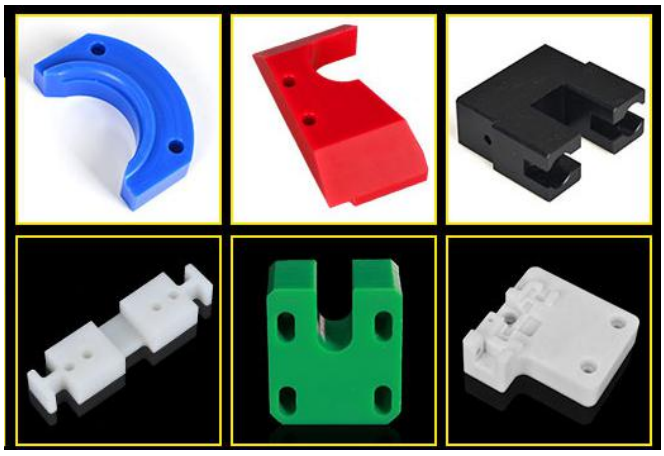
when compared with virgin nylon 6, this 30% glass fibre reinforced and heat stabilised nylon grade offers increased strength, stiffness, creep resistance and dimensional stability whilst retaining an excellent wear resistance. It also allows higher max. service temperatures.

Nylon 66

This material with a higher mechanical strength, stiffness, heat and wear resistance than extruded nylon 6. It also has a better creep resistance but its impact strength and mechanical damping ability are reduced. Well suited for machining on automatic lathes.

Trade names:	Ultra High Molecular Weight Polyethylene/UHMWPE
Available Shapes:	Sheets, Rods, Plates, Tubes
Color:	Natural White, Black, Other
Sheets Thickness:	1.0mm ~ 300mm
Rods Diameter:	2.0mm ~ 250mm
Relative Plastics:	ESD UHMWPE





UHMWPE Brief Introduction:

UHMWPE (also known as Ultra High Molecular Weight Polyethylene) Sheet and Rod products are manufactured from the semi-crystalline polyethylene (PE) family. Chinese UHMWPE Sheet and rods' maximum molecular weight can reach to 5 million which has a positive impact on material performance in an abrasive environment.

Advantages:

UHMWPE properties ensure that this plastic material is very light, extremely tough, chemically resistant and has excellent wear resistance.

Key Features:

- Excellent sliding properties
- High wear resistance
- High impact strength
- Very good chemical and corrosion resistance
- Good noise absorption
- Anti-adhesive
- High energy absorption capacity and high stress rates
- Temperature resistance from -200°C to +80°C
- Physiologically safe

Applications:

- Chemical Engineering: Corrosion and wear resistance mechanical parts
- Thermal power: coal handling, storage of coal, warehousing chute lining
- Coal processing: sieve plate, filter, U-underground coal chute
- Concrete: cement raw and finished product silo lining
- Grain: food storage or chute lining
- Mining: sieve plate, chute linings, wear anti-bonding part
- Food industry: bearings, guide rollers, guides, slide blocks, etc.

Polycarbonate/PC Sheet & PC Rod

Trade names:	Polycarbonate, PC
Available Shapes:	Sheets, Rods
Color:	Transparent, Black, other
Sheets Thickness:	0.125mm ~ 180mm
Rods Diameter:	2.0mm-100mm
Similar plastics:	POM

PC Brief Introduction:

Clear Polycarbonate Sheets and Polycarbonate Rod is a premium quality 'see through' polycarbonate material typically used in the fabrication of guarding in safety guarding, sight glass high impact applications.

Advantages:

Polycarbonate Sheets are an excellent product for safety and security applications. They are light-weight and has 250 x the impact strength of glass. High mechanical impact strength, even at low temperatures. Stiffness retention over a wide range of temperatures with good dimensional stability.

Key Features:

- Excellent impact resistance (250 times stronger than glass)
- Very good optical properties
- Work temperature range -130℃ to +130℃
- Ability to be cold formed in thinner gauges
- Moderate chemical resistance
- Self extinguishing
- Excellent acoustic properties
- Very low water absorption and low coefficient of linear thermal expansion
- Physiologically inert (suitable for food contact)
- Higher temperature resistance than acrylic and offers greater impact strength

Applications:

- Safety and vandal resistant glazing
- Machine guards
- Sight glasses
- Safety visors
- Transparent instrument components
- Electrical components

Teflon/Polytetrafluoroethylene/PTFE Sheet, PTFE Rods

Available Shapes:	Sheets, Rods, Tubes, Plates
Color:	Natural White
Sheets Thickness:	0.2mm ~ 80mm
Rods Diameter:	1.0mm ~ 250mm
Similar plastics:	Glass Fiber Filled PTFE, Carbon Filled PTFE

PTFE Brief Introduction:

PTFE resistant to practically every chemical known to man and has a surface as slippery as ice on ice to which no substance will adhere. PTFE will operate continuously at 260°C in harsh conditions for long periods. It will not degrade when exposed to long term sunlight.

PTFE is available in sheets, rods, tubes and plates in various different grades. Other forms of PTFE available include: glass filled and Skived Tapes.

Advantages:

- Outstanding chemical resistance
- Superb electrical insulating properties and high dielectric properties
- Stability work in temperature range from 260°C down to liquid nitrogen temperatures (-260°C)
- And a very low coefficient of friction, resulting in unique non-stick behaviour
- Lowest co-efficient of friction
- Physiologically inert
- Non-toxic

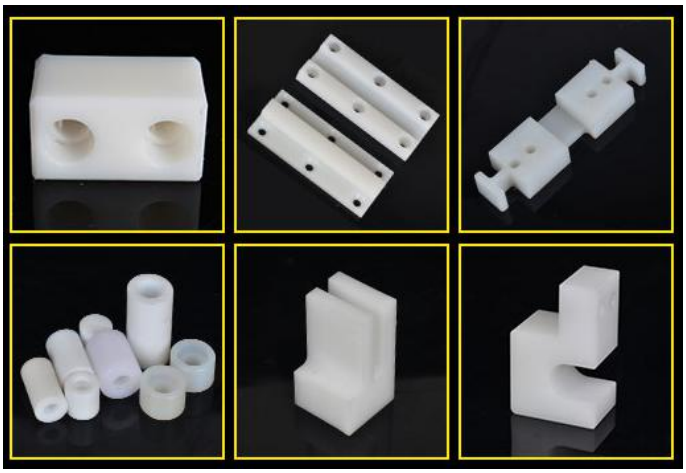
Key Features:

- Unaffected by almost all chemicals
- Continuous use at high temperatures
- Slippery non-stick surface
- Outstanding dielectric properties

Applications:

- Seals
- Seats
- Packing
- Chevrons
- Piston rings, glide rings, lantern rings, back up rings
- Slide bearings
- Electrical and thermal insulators

Trade names:	Polyvinylidene Fluoride, PVDF
Available Shapes:	Sheets, Rods, Tubes，Plates
Color:	Natural White
Sheets Thickness:	8.0mm ~ 60mm
Rods Diameter:	3.0mm ~ 100mm
Similar plastics:	Glass Fiber Filled PTFE



PVDF Brief Introduction:

PVDF, polyvinylidene fluoride, is a versatile fluoropolymer which is both strong and tough as reflected by its tensile properties and impact strengths. PVDF has excellent resistances to creep and fatigue. In thin sections, such as films, filament, and tubing, PVDF components are flexible and transparent.

Advantages:

PVDF fluoropolymers are rigid and resistant to creep under mechanical stress and load. Because PVDF is stable to sunlight, and other sources of ultraviolet radiation, it is widely used as base resins for long-lasting exterior coatings. An additional advantage over other fluoroplastics is that PVDF can be welded into tanks for acid and corrosive chemical processing in elevated temperature environments.

Key Features:

- Mechanical strength and toughness
- High abrasion resistance
- High thermal stability
- High dielectric strength
- High purity
- Readily melt processable
- Work temperature range -30-150 °C
- Resistance to most chemicals and solvents
- Resistance to ultraviolet and nuclear radiation
- Resistance to weathering
- Resistance to fungi
- Weldable

Applications:

- High purity water
- Halogen
- Acid applications
- Nuclear waste processing
- igh temperature applications
- Pressure applications
- Solar glazing

Polyphenylene Sulfide/PPS Sheet, PPS Rods

Trade names:	Polyphenylene sulfide, PPS
Available Shapes:	Sheets, Rods
Color:	Natural Brown
Sheets Thickness:	8.0mm ~ 150mm
Rods Diameter:	8.0mm ~ 150mm
Similar plastics:	PEEK

PPS Brief Introduction:

PPS is a chemical and corrosion resistant thermoplastic material that is often used in applications involving exposure to corrosive chemicals at elevated temperatures.
PPS has outstanding mechanical properties and it is resistant to hot water and steam. Bearing-grade PPS has excellent wear resistance.
PPS is often used as a lower cost alternative to replace PPS at low to moderate temperatures. PPS continuous temperature is 220 ℃ . Since the glass transition temperature only 90 ℃ , it need to pay more attention when use under high temperature and high load.

Advantages:

- Very high strength and hardness
- High rigidity
- High heat deformation resistance
- High dimensional resistance
- Very high chemical resistance
- Very good electrical insulation properties
- High resistance to the effects of weather
- High hydrolysis resistance in the case of non-reinforced types

Key Features:

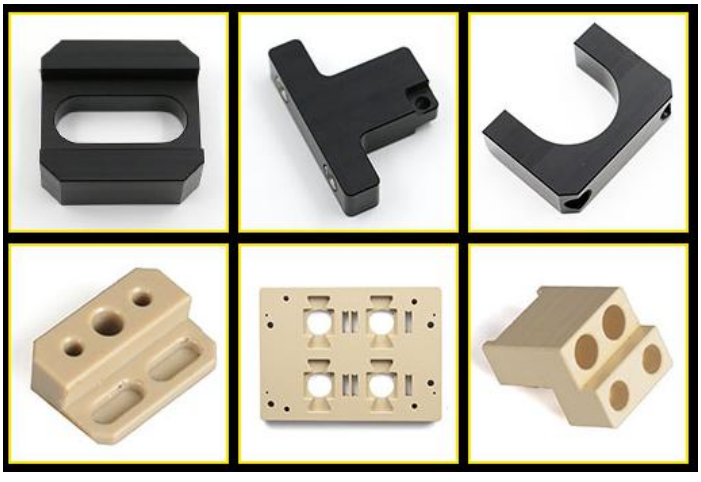
- Outstanding chemical resistance
- Resistant to hot water and steam
- Strong and stiff
- Can be used at elevated temperatures
- Excellent wear characteristics (bearing grade)
- Good dimensional stability
- Low moisture absorption
- Low thermal expansion
- High dielectric strength

Applications:

- Semiconductor machinery components
- Scientific instrumentation parts
- Electrical components
- Pump and valve components

Polyether Etherketone/PEEK Sheet, PEEK Rods

Trade names:	Polyether etherketone, PEEK
Available Shapes:	Sheets, Rods, Tubes，Plates
Color:	Natural White
Sheets Thickness:	5.0mm ~ 50mm
Rods Diameter:	5.0mm ~ 100mm
Similar plastics:	PPS



PEEK Brief Introduction:

PEEK is a high performance engineering thermoplastic that offers chemical and water resistance similar to PPS, but can operate at higher temperatures. PEEK can be used continuously to 480°F (250°C) and in hot water or steam without permanent loss in physical properties. For hostile environments, PEEK is a high strength alternative to fluoropolymers. PEEK carries a V-0 flammability rating and exhibits very low smoke and toxic gas emission when exposed to flame.

Advantages:

- Excellent chemical resistance
- Very low moisture absorption
- Inherently good wear and abrasion resistance
- Unaffected by continuous exposure to hot water or steam
- High temperature resistant, can withstand 250°C

Key Features:

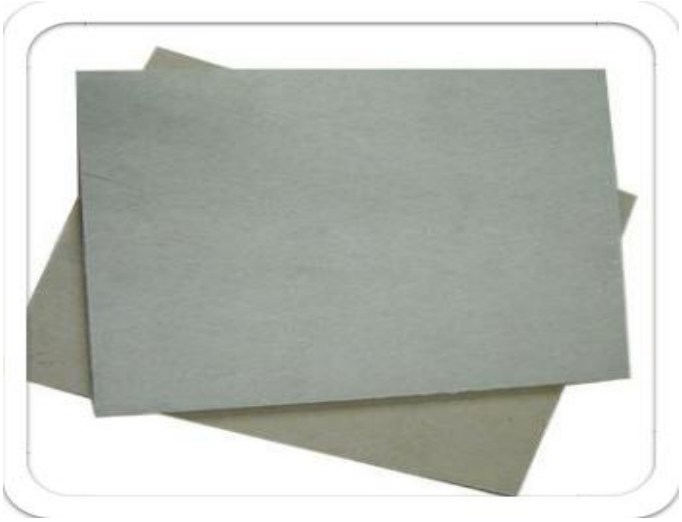
- Strong and stiff plastic
- Outstanding chemical resistance
- Good mechanical properties at elevated temperatures
- Resistant to hot water and steam
- Bearing grade PEEK has excellent wear characteristics
- UL 94 V-0 flammability rating (0.059" thickness)
- Very low smoke and toxic gas emissions when exposed to flame

Applications:

- Semiconductor machinery components
- Aerospace parts
- Seals
- Pump and valve components
- Bearings and bushings (bearing grade PEEK)
- Electrical components
- Medical instrument parts
- Food processing machinery components

Durostone Equivalant Sheet/Carbon Fiber Glass Reinforced Sheet

Trade names:	Alternative Durostone
Available Shapes:	Sheet, solder pallet jig
Color:	Black
Sheets Thickness:	2mm ~ 80mm
Size:	1020mm x 1220mm, 1220 x 2440mm



Carbon GF Reinforced Sheet Brief Introduction:

China alternative Durostone sheet CAS761 is a heavy-duty glass fiber reinforced plastic which offers extreme strength and excellent electrical, thermal and chemical properties. It can keep it's mechanical strength, smoothness and original color when continuously used under the temperature of 280°C (max. working temperature below 385°C 10~20sec).

Advantages:

Durostone sheet CAS761 recognized worldwide and appreciated for their high temperature resistance, excellent machinability, chemical resistance, static dissipative properties and are sensor detectable.

Key Features:

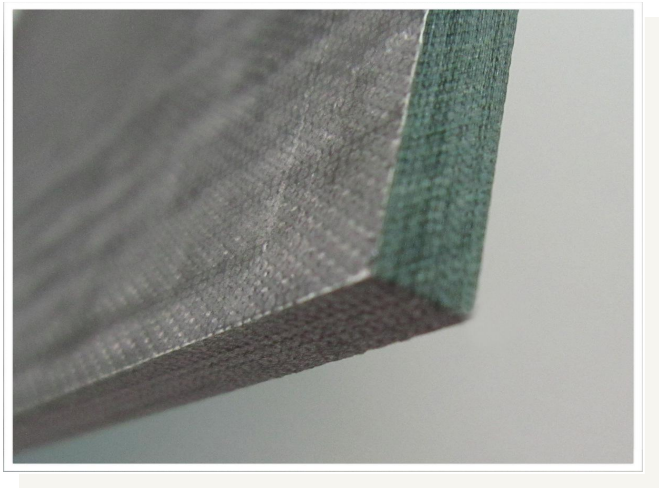
- Normal working temperature at 280℃, operating temperature up to 360 ℃
- Less distortion, low thermal conductivity
- Superior dimensional stability, Long life
- High temperature resistance
- Resistance to chemical corrosion
- High mechanical strength
- Good machinability (low density)

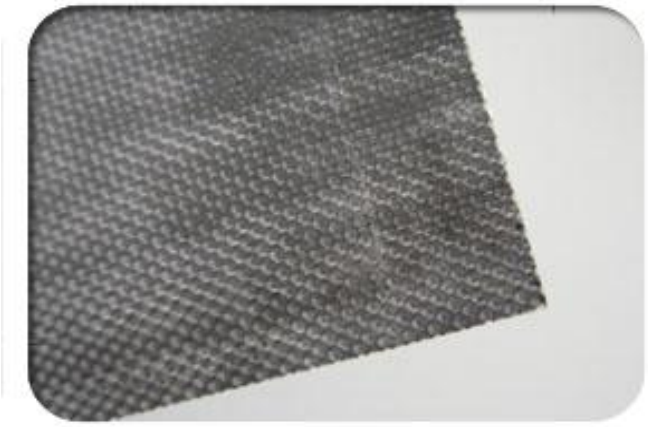
Applications:

- Wave solder pallet and reflow pallet
- Electronic components automatic cartridge
- Solder paste screen printing
- SMT Surface Mount technology
- IR reflow curing
- Online testing jig

Ricocel Equivalant Sheet/Carbon Fiber Glass Reinforced Sheet

Trade names:	Ricocel
Available Shapes:	Sheet, solder pallet jig
Color:	Black
Sheets Thickness:	3mm ~ 50mm
Size:	1020mm x 1220mm





Ricocel Similar Material Brief Introduction:

It is the anti-static black colored epoxy glass cloth material which is highly stable at high temperature of lead free solder and flux chemicals. It is mostly used as PCB carrier or solder pallet in wave soldering process.

Solder pallet is exposed repeatedly to high temperature for example, above 300ºC in soldering process. According to the various tests, this material shows excellent results in dimensional stability, water absorption and weight loss etc. Also the machining workability is superior when compared with other material on the market.

Advantages:

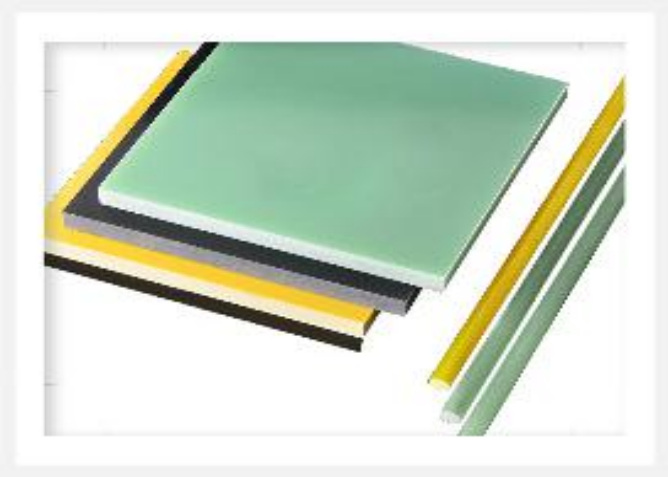
- Work temperature: 300 degrees(long time), 350 degrees(short time)
- Excellent anti-static volume resisitivity: 10^6 ~ 10^8
- Excellent chemical resistance
- Excellent mechanical strength for fine machining.
- Excellent durability against repetitive soldering of more than 20,000-time.
- Excellent chemical resistance against soluble flux or pallet cleaner.
- Excellent machinability which is durable against high feed machining.

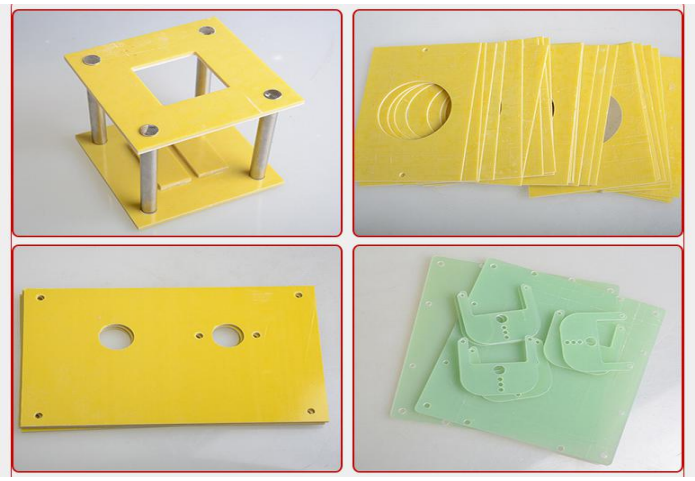
Applications:

- Wave solder pallet and reflow pallet
- Electronic components automatic cartridge
- Solder paste screen printing
- SMT Surface Mount technology
- IR reflow curing
- Online testing jig

Epoxy Sheet & Rod/Glass Fiber Reinforced Sheet & Rod

Trade names:	Epoxy/Glass Fiber Reinforced
Available Shapes:	Sheet, Rod
Color:	Yellow, Green, Light Green
Sheets Thickness:	0.3mm ~ 80mm
Rods Diameter:	20mm ~ 60mm
Models:	3140, FR4, G10, ESD FR4





Epoxy **GF Reinforced Sheet Brief Introduction:**

Laminated material in sheets, made from modified nonalkaline glass fabric as a frotifier material and epoxy resin as a binder. In addition to its good mechanical and electroinsulating properties. The material is self-extinguishing, classified as inflammable.
China Epoxy glass cloth laminated sheet for magnetic conductivity, with high mechanicalstrength, heat-resistance, with good magnetic permeability.Suitable for making magnetic slot and wedge for motors.

Advantages:

- Extremely high mechanical strength
- Good dielectric lossproperties
- Good electric strength properties, both wet and dry.

Key Features:

- High mechanical properties, and oil resistance and certain dielectric property.
- Thermal rating is 120, and temperature resistance : 150 °C
- Withstand a variety of chemical solvents and acid erosion

Applications:

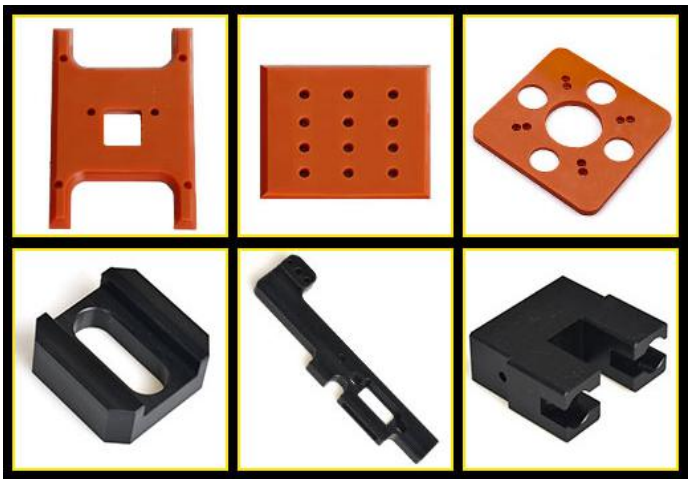
- Chemical machine parts
- General machine parts and gear, generators, Pads, base, baffle
- Generator,transformer, fixture, inverter, motor
- Electric insulation component

G10/FR4 Glass Reinforced Epoxy - light green
It has extremely high mechanical strength, good dielectric loss properties, and good electric strength properties, also work as fixture under high temperature.

3240 Glass Reinforced Epoxy - yellow
It has high mechanic and dielectric performance, and applicable as insulation structural components.

Phenolic Sheet/Bakelite Sheet

Trade names:	Phenolic Sheet, Bakelite Sheet
Available Shapes:	Sheet
Color:	Natural orange, brown, black
Sheets Thickness:	3.0mm ~ 100mm
Sheet Size:	1020mm x 2020mm
Relative plastics:	**ESD bakeliet sheet, 3025**



Bakelite Sheet:

Phenolics are a uniformly dense and structurally strong material that will not soften appreciably under the reapplication of heat. It is an extremely durable plastic that is lightweight and moisture resistant. Industrial laminates are thermoset resin impregnated reinforcing materials (paper, cotton fabric, glass fabric, etc.) that are cured under heat and pressure to form solid shapes having high mechanical and electrical insulating properties. Laminates are available in sheet, rod, and tubes. Since laminates are comprised of a combination of materials, they are also referred to as composites.

Advantages:

High mechanical properties, and oil resistance and c ertain dielectric property.
Thermal rating 120 grade, and temperature resistanc e: 120°C

Key Features:

- Excellent dielectric strength
- Good machinability
- Light weight
- Heat and wear resistant
- Resists corrosion and chemicals
- Good mechanical strength
- Good dimensional stability
- Low moisture absorption

Applications:

- Wear strips, Gaskets, Washers, Transformers
- Insulation machining components
- Industrial laminates, Terminal boards ,Switches

Plastic Grades:

Paper Reinforced Phenolic Sheet:

Normal electrical applications, moderate mechanical strength, continuous operating temperature of 120°C(250°F)

Cottone Reinforced Phenolic Sheet:

Good mechanical and impact strength with continuous operating temperature of 120°C(250°F)

☞ Contact Us

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Thank you for view! Hope to cooperate with you soon!