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PARTNER HIGHLIGHT

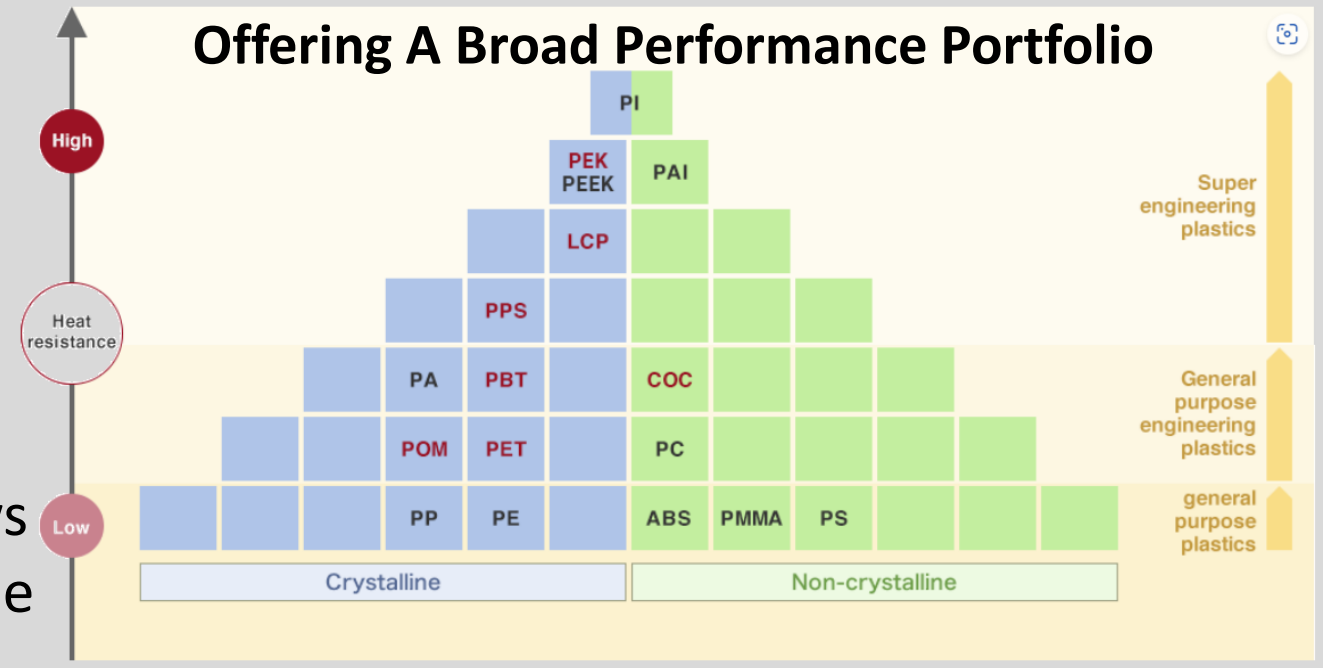
Polyplastics


Polyplastics R&D Center at the foot of Mt. Fugi

Polyplastics is a specialized engineering plastics manufacturer and was the first manufacturer and seller of polyacetal (POM) in Japan. Today we are developing as a global manufacturer numerous engineering plastics such as **POM, PBT, PPS, LCP, PET and COC**. Utilizing our network of 32 offices and plants in 11 countries, globally-consistent quality and quick delivery making Polyplastics one of the world's leading producers as we support your manufacturing needs globally.

DURACON® POM

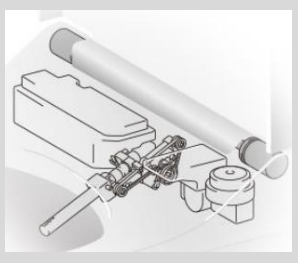
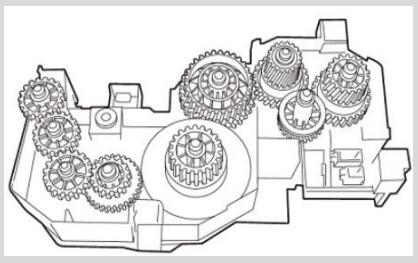
The well-balanced mechanical properties of **DURACON® Polyacetal (POM)** include self-lubrication with oil-resistance. This product was first used commercially to replace machinery components such as gears, screws and bearings, which were previously all made of steel. Today, it has a wide range of applications from everyday household goods such as zippers and toothbrushes to vehicle safety equipment like door locks and latches, seatbelt locking mechanisms and fuel system components. Range of formulations available.



※Names in red are produced and sold by Polyplastics Co., Ltd. Polyplastics is a specialized manufacturer that develops, manufacture, and sell engineering plastics.

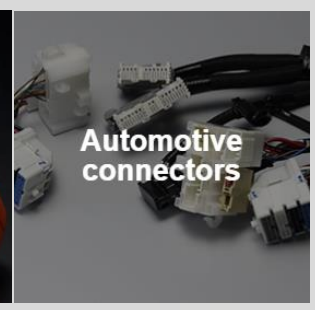
Standard						High rigidity
M25-44	M90-44	M140-44	M270-44	M450-44	M90FC	HP25X
High viscosity	Standard	High flow	High flow, High cycle	Super high flow, High cycle	Standard	High viscosity

High rigidity		Creep resistant	Weather resistant			
HP90X	HP270X	CP15X	M25-45	M90-45	M270-45	LU-02
Standard	High flow	Creep resistant	High viscocity	Standard	High flow	Low gloss, Light-resistant

DURANEX® PBT

DURANEX® Polybutylene Terephthalate (PBT) is characterized by its heat resistance and outstanding electrical properties. Its excellent compatibility with various kinds of reinforcement and additive agents means that it can be given many different properties according to specific customer needs. This also allows us to develop a diverse range of grades in our product lineup. This versatile product is utilized in a wide range of areas from wire harness connectors in automobiles to all kinds of electronic components.

PLASTRON® LFT

Polyplastics

Long Fiber Reinforced Thermoplastics to expand the use of resin to new fields

PLASTRON® LFT is resin in which long reinforcing fibers (glass fibers, cellulose and carbon fibers) of the same length are incorporated into resin pellets in the same direction. As a material it has both rigidity and high impact strength that were unattainable with conventional fiber-reinforced resins, thus enabling the use of thermoplastic resins in place of metals and fiber-reinforced plastics (FRPs) in a broader range of fields.
It is also a thermoplastic resin that combines different types of long fibers in various resin matrices, enabling the optimal grade selection according to the usage structural members of cars and motorcycles.
This resin can help reduce weight in a broad range of applications, from industrial products such as industrial-use pump housings and fitting parts of civil engineering pipes to various functional parts and structural members of cars and motorcycles.

PP carbon fibers	High strength, electrically conductive	PP-CF40-11(L8)
PP cellulose fibers	Eco-friendly	PP-RF40-02(L7)
PA6 glass fibers	Mechanical strength	PA6-GF60-01(L9)
PA6 carbon fibers	High strength, electrically conductive	PA6-CF40-01(L9)
PAMXD6 glass fibers	Mechanical strength	PAX-GF60-02(L9)
PAMXD6 carbon fibers	High strength, electrically conductive	PAX-CF40-02(L9)
PA9T glass fibers	Mechanical strength	PA9T-GF50-01(L9)
PA9T carbon fibers	High strength, electrically conductive	PA9T-CF40-01(L9)

High impact resistance

Three to five times the impact strength of short fiber-reinforced resins

Broad usage temperature range

High elasticity retention at high temperatures, superior impact retention at low temperatures

High rigidity

Large volume of integrated fibers

Superior creep properties

Superior creep properties particularly at high temperatures

Sliding & wear

Good outer appearance. Fibers have less fracture surfaces and experience a lesser amount of wear

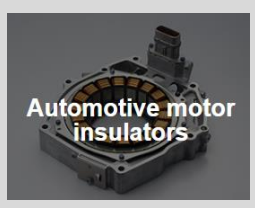
Dimensional stability

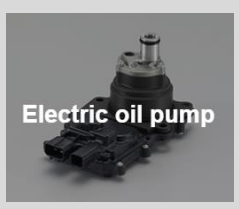
Low warpage, few sink marks. Low linear expansion coefficient

DURAFIDE® PPS

DURAFIDE® Polyphenylene Sulfide (PPS) was launched by Polyplastics as Japan's first compound production, based on supply of PPS polymer with linear molecular structure from Kureha Corporation. It keeps its superior mechanical strengths, heat resistance, chemical resistance and fireproof properties. Moreover, it boasts excellent toughness compared to traditional PPS because of its superior ability to withstand stretching and impacts. Its applications range from peripheral automotive engine parts and electrical components in hybrid and electric vehicles to smartphones and water mixing valves in baths and basins.

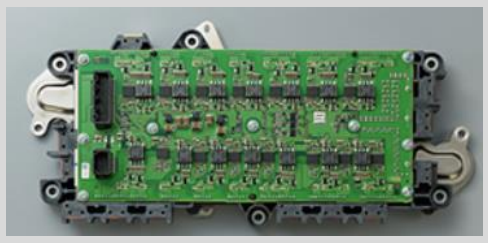
- Linear PPS
- Mechanical strength
- Chemical resistance
- Good soldering heat resistance
- Heat-shock resistance
- Electrical insulation
- High dimensional accuracy
- Low fuel swelling
- Heat resistance
- Long-term durability





LAPEROS® LCP

LAPEROS® Liquid Crystal Polymer (LCP) is a leading super engineering plastic that has a thinness and fluidity unheard of in typical engineering plastics. Heat-resistant and possessing incomparable mechanical strength, LCP has the unique attribute that the thinner the product becomes, the greater its mechanical strength. Moreover, it has a low coefficient of linear thermal expansion close to that of metal. It is often used in super-miniature precision connectors for ever-smaller IT devices like tablets and smartphones.



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