

# The Rise of Plastic Gears: Why They Are Becoming the Go-To Choice for Manufacturers



In the past, metal gears were widely used in industries for their strength and durability. However, with the advancements in technology, plastic gears are taking over the market. In this blog, we will delve deeper into the reasons why plastic gears are becoming the new norm in the manufacturing industry.

# What are Plastic Gears?

Plastic gears are precisely designed gears made of high-performance engineering plastics like <u>nylon sheets</u>. These gears offer several benefits, including low noise levels, lightweight, and low maintenance costs. Nylon gears are a popular choice for industries such as automotive, aerospace, and medical equipment.



### How are Plastic Gears made?

Plastic gears can be fabricated through various manufacturing processes such as injection molding, extrusion molding, and machining. Injection molding is the most widely used process for mass production of gears. During this process, molten plastic is injected into a mold cavity, and the plastic takes the shape of the mold. This process offers high precision and repeatability, making it ideal for producing large quantities of gears with consistent quality.

# Why are Plastic Gears becoming the go-to Choice for Manufacturers?

### Low Cost

Compared to metal gears, plastic gears are much cheaper to produce. With lower production costs, manufacturers can offer their products at a lower price point, making them more attractive to customers.

## • Lightweight

Plastic gears are much lighter than their metal counterparts, which makes them ideal for industries where weight is a concern, such as aerospace and automotive.

### • Low Noise Levels

Plastic gears generate less noise than metal gears, making them perfect for applications where noise is a concern, such as medical equipment and home appliances.

# • Corrosion Resistance

Plastic gears are resistant to corrosion, which means they last longer than metal gears in harsh environments. This makes them ideal for outdoor applications such as farming equipment.

### Easy to Customize

Plastic gears can be easily customized to meet specific requirements. Manufacturers can choose from a wide range of engineering plastics such as nylon bushings, nylon rods, and nylon strips suppliers to customize gears that meet their exact needs.

# How to Choose the Right Plastic Gear?

When choosing the right plastic gear, there are a few things to consider. First, consider the application and the required load capacity. Next, consider the operating temperature range and the environment in which the gear will be used. Finally, consider the type of plastic used, such as nylon or acetal, and the manufacturing process used to fabricate the gear.

# Conclusion

Plastic gears are becoming increasingly popular in the manufacturing industry due to their low cost, lightweight, low noise levels, corrosion resistance, and easy customization.

Manufacturers can choose from a variety of engineering plastics such as nylon sheets, **nylon bushings**, **nylon rods**, and nylon strips suppliers to create custom



gears that meet their specific requirements. Choosing the right plastic gear for your application is essential, and it's crucial to consider factors such as load capacity, operating temperature range, environment, and the type of plastic used. With the right plastic gear, manufacturers can increase efficiency, reduce costs, and improve overall performance.

At Johnston Industrial Plastics, we offer a wide range of plastic fabricated products such as peek rods, Teflon sheets, and plastic fabrication services. Our experts are continuously challenging our own best creations to come with something innovative every time. Contact us today to learn more about how our plastic products and services can help your business thrive.

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