

# TECHTALK DESIGN ADVICE SERIES

## 4 REASONS TO USE ENVIRONMENTALLY FRIENDLY PLASTIC BUSHINGS



In the words of Kermit the Frog, “It ain’t easy being green.” And while he might be just a Muppet, Kermit has a point – these days, many companies are working hard to reduce their carbon footprint on the environment.

However, becoming a more environmentally friendly operation does not happen overnight. It is usually a culmination of changes that take place over time, in a number of different areas. So, what small change can you make to help this cause? While it might sound insignificant, using [dry-running plastic bushings](#) can greatly decrease any negative effects on the environment.

Here are four reasons to use environmentally friendly plastic bushings:

1. **Plastic bushings do not require lubrication, which keeps the environment cleaner.** It is estimated that one billion gallons of industrial lubricants are consumed annually in the United States and about 40 percent of that is released into the environment. Due to continual advances in tribologically-optimized plastic bushing technology, igus® is able to supply metal bushing alternatives more in line with environmental considerations for an increasing number of applications. Unlike metal or bronze bearings that require messy lubrication, every iglide® plastic bushing uses solid lubricants embedded inside millions of tiny chambers that cannot be pressed out. This means the bushings do not require any oil or grease and so no contaminants are released into the environment.



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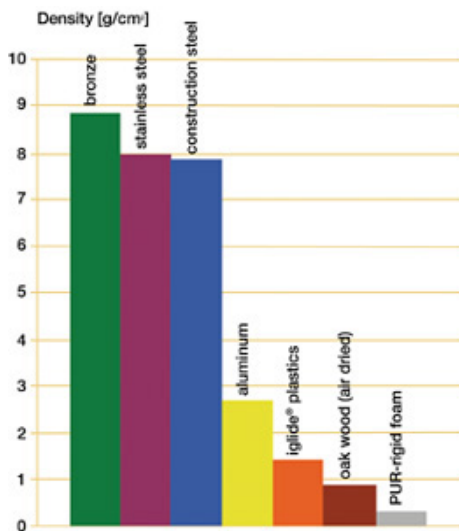
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using an environmentally unfriendly, high-energy zinc galvanizing bath to achieve this effect.

- Less energy is required to produce a plastic bushing compared to a metal bearing.** For example, the energy from four gallons of crude oil is necessary to produce four cups of aluminum and the energy from three gallons of crude oil is necessary to produce four cups of steel. In comparison, it only takes 0.48 gallons of crude oil to create four cups of plastic and we expect this value to fall even further based on continuing breakthroughs in the field of vegetable-oil based plastics.

- Plastic bushings are extremely lightweight, which helps reduce fuel consumption and carbon dioxide output.** The solid lubricants contained within iglide® plastic bushings are not the only ecologically valuable benefit. These lightweight bearings can also help to reduce fuel consumption and carbon dioxide output in applications such as outdoor equipment, automobiles and aircrafts. The reduced weight leads to lower masses and subsequently lower energy consumption.
- Plastic bearings do not require environmentally harmful galvanizing baths.** The high chemical resistance of plastic bushings is another positive ecological aspect. Metals often have to be coated

#### Useful links

[Learn why plastic bushings are an ideal replacement for bronze bearings](#)

[Learn more about iglide® plastic bushings](#)

[iglide® configurator](#)

[Application examples from different industries](#)