

# iglide<sup>®</sup>

## Maintenance-Free, Lubrication-Free Plastic Bearings



**igus<sup>®</sup>.com**  
Plastics for longer life

# What is iglide®?

## iglide® bearings are ...

freedom from maintenance through superior plastic bearing technology. Precisely matched reinforcement additives and solid lubricants combine with base polymers to create more than 25 advanced iglide material blends. These materials are used to make high-performance plastic bearings to meet the needs of almost any application from the simplest to the most complex, and every kind in between.

With forty years of experience, more than 3,500 tests performed each year and more than 100 new plastic compounds developed annually, igus® has built a comprehensive database on the tribologic properties of polymers. Every iglide® bearing has been tested thousands and proven millions of times over. With iglide®, simply install it — and forget it.

### Features and benefits of iglide plastic bearings:

- ◆ self-lubricating
- ◆ maintenance-free performance
- ◆ long life at a low cost
- ◆ low coefficient of friction
- ◆ high wear resistance
- ◆ high load capacity
- ◆ high temperature resistance
- ◆ dirt, dust and UV resistance
- ◆ corrosion resistance
- ◆ self-alignment
- ◆ chemical resistance
- ◆ vibration dampening
- ◆ thin-walled design
- ◆ lightweight
- ◆ replace metal/bronze/roller bearings

In addition to these numerous technical advantages iglide® bearings offer enormous cost savings — up to 40% or more — in comparison to standard metallic rolled bearings.

iglide® plastic bearings deliver a cost-effective, lubrication-free and maintenance-free alternative to bronze, metal-backed and custom injection-molded bearings. From severe temperatures, to contamination to underwater applications, there is an iglide bearing for almost every occasion. **Offered in more than 6,000 inch and metric sizes and styles, including flange, thrust and sleeve, if an iglide® bearing isn't available to meet your specifications, igus® will custom tool a bearing to suit your needs.**

Call us with your application information and for free samples.  
Discover how iglide® plastic bearings can benefit you!

# Where is iglide®?

## iglide® can be used ...

anywhere, in any motion — linear, rotating, oscillating — and in almost any condition. From severe temperatures, to contamination, to underwater applications, with more than 20 standard material blends to choose from, there is an iglide bearing for most applications.

### Outdoor equipment/agricultural applications

With its self-lubricating, oil-free operation, iglide® is environmentally safe and ideal for use in agricultural applications, lawn and garden machinery, commercial mowers and industrial golf course equipment.



iglide bearings in agricultural equipment

### Printing industry

iglide® outperforms other bearing solutions in frequent start-and-stop movements common in the printing industry. iglide® also is impervious to paper dust and harsh chemicals.



### Recreational/sports applications

iglide® has been implemented in roller coasters and ski equipment; in the shocks of bicycles and in the steering system of recumbent tricycles; and in many areas within off-road autonomous vehicles.

### Fitness industry

iglide® bearings can significantly reduce assembly costs for fitness equipment. Their quiet and lubrication-free operation is essential so as not to raise noise levels for users and to prevent any oil or grease leaking onto the machine.

iglide bearings are being used recreational applications

### Food and beverage industry

Oil-free iglide® won't contaminate food, nor vice versa will it be contaminated by the food and ingredients such as salt, sugar or flour that could cause seizure and machine failure if they penetrated into other types of bearings. FDA approved bearings are available.



Food industry

### Medical equipment

Many medical applications benefit from iglide's lubrication-free operation. This is especially critical when involving fluids and materials that could be contaminated by oil or grease. Also important is quiet operation to ease procedures for patients.



Marine industry

### Underwater applications/marine industry

Certain iglide® bearings are designed for wet environments and can perform in underwater or wash down applications such as boat motors, bottle-filling equipment and dishwashers. Factors such as humidity or constant submersion in water will not affect the capabilities of the bearing.

### Automotive applications

iglide® bearings are used under-the-hood where extreme temperatures and harsh chemicals are common and for quick, short rotations such as seat adjustment and mirror actuators. iglide also provides an economical solution for mass production and can be used in convertible tops, door hinges, chassis, steering systems and gearboxes.



iglide® bearings are used in the manufacture of convertible tops for the automotive industry.

# iglide® Materials

## iglide® is available in ...

6000 standard sizes from stock, in a variety of material blends. No matter what your application needs, igus® has an iglide® bearing for you. Here is an overview of some of the material blends available. Call igus® for details on these products ...



G300

### All Around Performer

The **iglide® G300** material comprises a thermoplastic base material, a network of fibers and a mix of solid lubricant.

The thin wall thickness of iglide® G300 bearings ensures good heat conducting characteristics, resulting in higher load capacity.



T500

### High Temperature High Loads

**iglide® T500** is a unique bearing material that combines three specific characteristics: temperature resistance, high-load capacity and universal chemical resistance. The compound is made of a high-temperature resistant thermoplastic alloy, supported by a network of special fibers and permeated by solid lubricants. The solid lubricants were tested for their temperature compatibility and inertness to chemicals.



Q

### High Strength High Loads

**iglide® Q** was developed specifically for high-pressure applications. Extreme radial loads occur time and again in lift tables and material handling equipment. Bearings can be subjected to high pressures in clamping operations and hoisting equipment. External lubricants can be squeezed out of metal bearings under such conditions.



L280

### Marathon Runner High Service Life

In applications where all other materials have shown insufficient operating life, **iglide® L280** bearings can be the solution. iglide® L280 is designed specifically for high-abrasion resistance. The material is based on a tough thermoplastic alloy, a matrix comprising highly abrasion-resistant fibers and friction reducing solid lubricant.



P

### Cost-Effective, Maintenance-Free

**iglide® P** is a cost-effective, maintenance-free plain bearing. These bearings are well suited for rotating movements and high loads.



H370

### High Performance For Wet Environments

**iglide® H370** is characterized by very low water absorption and clearly improved wear resistance. In terms of the mechanical and thermal characteristic values, iglide® H370 has the same properties as the standard iglide® H bearing.

# iglide® Materials



**Cost Effective  
Bronze Alternative**

iglide® R was developed with high performance and a very low price as a top requirement. In particular, low coefficients of friction were needed at high speeds while running dry. Plain bearings made of iglide® R are designed with support from a combination of solid lubricants. The material achieves excellent low coefficients of friction while running dry, and it runs virtually stick-slip free.



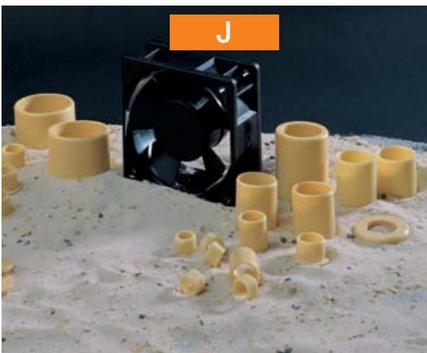
**Pure and Healthy  
FDA Approved**

iglide® A200 bearings have been approved for direct contact with food and pharmaceuticals. They are the ideal solution for the manufacture of medical instruments, household appliances, etc. The high level of abrasion and dirt resistance, and the capability to operate under dry conditions make it possible to perform without the expensive complex housings required for lubricated bearings.



**Cost-Effective  
High Temperatures**

iglide® H2 plain bearings are used foremost for economic reasons. For the first time, it is possible to offer an economically priced, high performance bearing. iglide® H2 bearings can be used in underwater applications, in high temperature environments and are resistant to chemicals. A mixture of solid lubricants reduces the coefficient of friction and enhances the wear resistance.



**Fast and Slow  
Motion Specialist**

iglide® J is a low-cost bearing for light loads, providing very low friction in almost any environment. iglide® J is specially designed for start/stop, light-duty applications and requires no external lubrication. The stick-slip tendency is extremely low, a fact of particular significance in low load, very low-speed applications. iglide® J can also be used for high-speed, more than 3ft/s, applications, due to its low coefficient of friction.



**High Temperature  
Extreme Loads**

iglide® Z plain bearings for very high load applications. iglide® Z makes possible the use of plastic bearings in highly loaded pivot points on bus and truck suspension systems, construction, agricultural and material handling equipment.



**Thick and Rugged**

iglide® M250 self-lubricating bearings are ideally suited for low to medium load applications. Impact resistance and vibration dampening, wear resistance and the ability to absorb dirt ingress represent the primary advantages of this bearing type.

**... and many more.**

# Custom iglide®?

## iglide® can be made ...

to meet the parameters of an unconventional application. We can produce special solutions with lifetime calculations and wear rates that deliver the same advantages as a standard iglide® bearing from stock: maintenance-free, self-lubricating, low-friction and low wear. A bearing in any shape, such as square, trapezoid or rectangle can be molded in any size. Call your igus representative for further information.



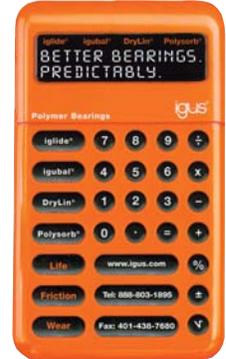
# iglide® is predictable

iglide® is proven ...



iglide® bearings in printing equipment

using more than 20 years of intensive laboratory research and testing. The iglide® Predictability Calculator enables engineers to instantly analyze and predict the life and wear of iglide® bearings.



Calculations are based on actual test data from the lab, as well as data compiled from real life field-testing by customers. There are too many variables involved to cover every application for every type of bearing. Instead, this unique tool predicts the performance of any iglide® bearing within the specific parameters of an application.



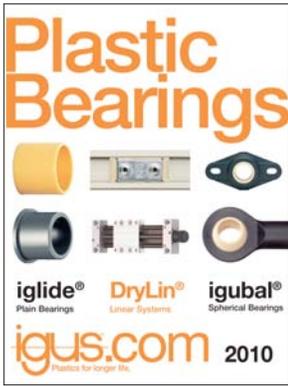
iglide® bearings in the fitness industry



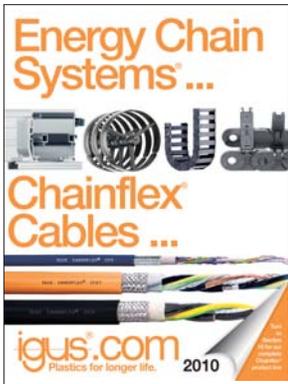
Visit [www.igus.com/predict](http://www.igus.com/predict) and discover which iglide® bearing is right for your application.



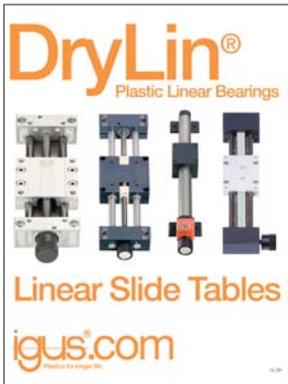
Medical industry applications



The iglide® catalog showcases more than 12 standard polymer material blends (additional blends available for custom orders). These engineered plastics are used throughout the plain, spherical and linear bearing product lines, as well as in the gliding elements of all DryLin® linear guide systems. All iglide® bearings and materials are self-lubricating and maintenance-free. More than 8,000 sizes and styles are available from stock.



The Energy Chain Systems® catalog provides comprehensive technical data and design information about hundreds of cable carriers and cable products. The new catalog has been revamped for ease of use and simplicity to quickly locate what you need. All products are backed by a complete system warranty. Various on-site services and harnessing solutions are available.



The new DryLin® linear slide table brochure provides customers with a complete range of slide table options for their packaging, medical and cleanroom applications. Six varieties are available in multiple sizes to meet a range of application requirements. Customizable solutions also are available.



The Y.E.S. (Young Engineers Support) Program offers free product donations to students and educators for use in design competitions, school projects and engineering curriculums. Through Y.E.S., igus fosters the mechanical design aspirations of young engineers and educates them about the merits and benefits of plastic components. Igus is a product supplier for competitions such as FIRST® Robotics, BEST™ Robotics and the SAE Collegiate Design Series. To learn more or to become a member of the Y.E.S. Program, visit [www.igus.com/yesprogram](http://www.igus.com/yesprogram).

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