

igus® dry-tech® bearings ... Don't lubricate

# iglide® ...



56 iglide® bearings on board

# on tour

Plastics for longer life® ...igus®

# A small car is setting off on a big trip

## Around the world with plastic bearings from igus®

### Triboplastics – ideal for use in the automotive industry

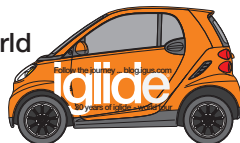
For 30 years, plastics specialist igus® has been firmly committed to researching, developing, and continually optimizing iglide® triboplastics for industrial applications. With over 12,000 products, igus® offers the world's broadest range of friction-optimized plastic bearings.

40 iglide® standard materials make igus® a key player in the field of Motion Plastics®.

igus® has established itself as a proficient automotive industry supplier.

From seat and convertible top systems, through multi-joint hinges and engine compartment components, to chassis applications – the potential uses for plastic bearings in vehicles are almost endless.

### Plastics in motion: A trip around the world



To mark the 30th anniversary of iglide® bearings, igus® is setting out on an adventurous round-the-world trip to demonstrate the high performance of its plastic products. A small car has been retrofitted with iglide® plastic components and is setting off on a global expedition: **“iglide® on tour”**.

The journey will take it across four continents and three oceans; mile upon mile of tarmac, gravel, dirt and mud, through rain, searing heat, and snow.

The tour can be followed online at:

 [igus.com/blog](https://www.igus.com/blog)

Reports, videos and photos will provide exciting insights into the “iglide® on tour” journey.



# 56 iglide® bearings on board

## Retrofit

At the Cologne University of Applied Sciences, students are working under the instruction of Johannes Thomé to get the car ready for the trip. Over the course of four weeks various bearings in the car were replaced by igus® parts.

[igus.com/blog](https://igus.com/blog)

Our car for “iglide® on tour” disassembled.

In the course of the retrofit, the car was totally dismantled. During the first step it was lifted so that the engine could be lowered and examined.

In cooperation with the German Technical Control Board (TÜV), igus® employees investigated which parts were replaceable.

To prepare the car for the start of its trip in February, bearing points were replaced in the following areas:

- seat adjustment
- brake pedal
- gearshift
- parking brake
- window regulators
- convertible roof pivots
- windshield wiper
- throttle valve
- alternator

All in all, there are 56 igus® bearings that have been retrofit into the car.



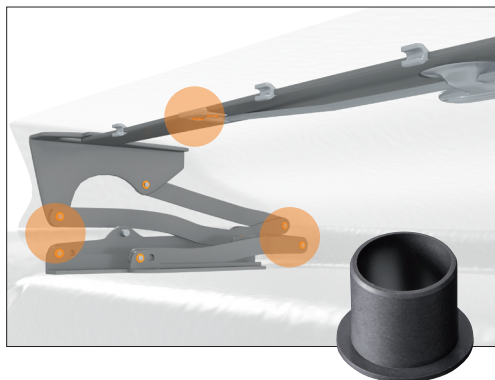
# Where you can find igus® in...



## Seat systems – adjustment / adjusting lever

iglide® J replaces lubricated plastic bearing made from POM

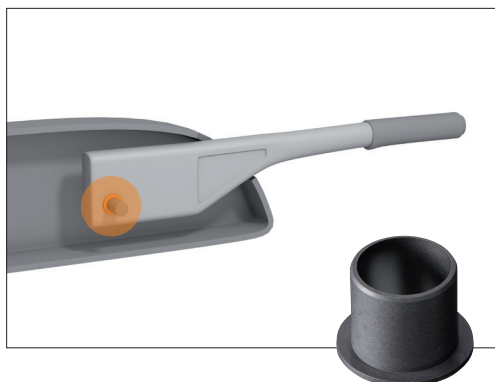
- Quiet operation
- Easy assembly
- Bearing clearance adapted for e-coating
- Tolerance compensation during e-coating
- Also runs on simple cold extruded parts/ tubes
- Self-lubricating



## Convertible top – operation and sealing

iglide® G300 replaces lubricated glass fiber filled PA6 polyamid and metal plain bushings

- Corrosion-resistant
- Also runs on cold extruded parts
- Bearing clearance adapted for e-coating
- Easy assembly
- High compressive strength
- Self-lubricating

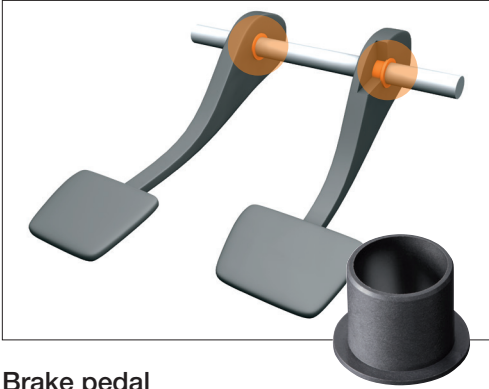


## Parking brake

iglide® G300 replaces lubricated steel-mount without bushing

- No rattling
- Quiet operation
- Easy installation
- Self-lubricating

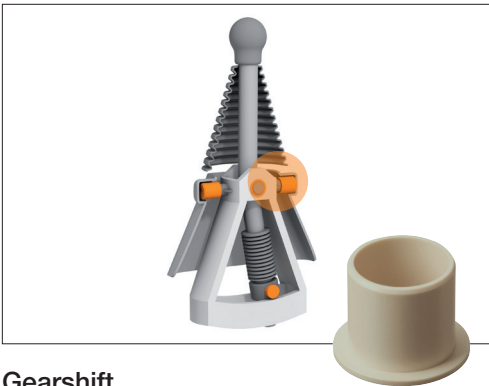
# the car and why?



## Brake pedal

iglide® G300 replaces lubricated glass fiber filled PA6 polyamid bearings

- Rattle-free
- Noise dampening
- Tolerance reconciliation through radial pretension
- Self-lubricating



## Gearshift

iglide® P210 replaces lubricated plastic and steel bushings

- Also runs against fiber-reinforced plastics
- Low clearance
- Smooth operation
- Self-lubricating

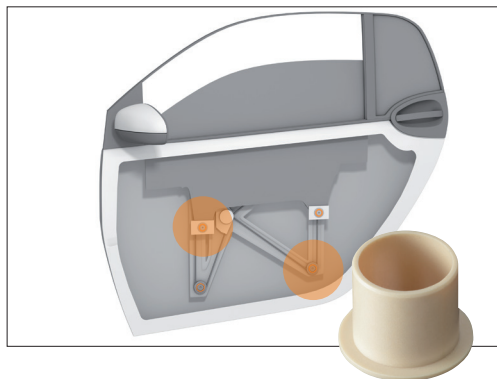


[igus.com/blog](https://igus.com/blog)

## igus® advantages

- Weight  
(7x lighter than metal)
- Cost-effective
- Individual molding

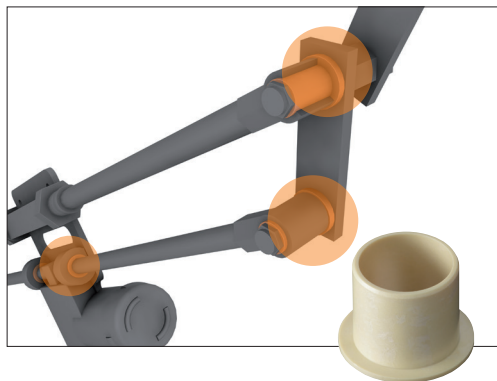
# Where you can find igus® in...



## Window regulators

iglide® J replaces lubricated plastic bushings made of POM

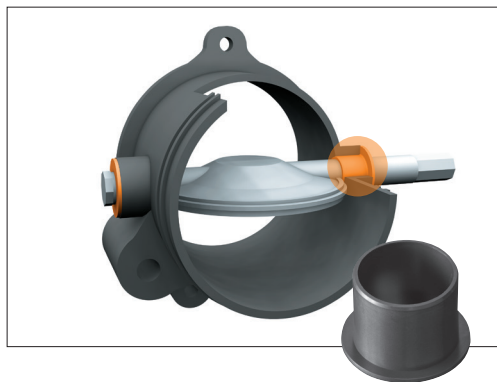
- Self-lubricating
- High wear resistance
- Noise-free operation
- Easy installation



## Windshield wiper mechanics

iglide® J260 replaces lubricated brass and plastic bearings made of PA66

- Corrosion resistant
- Dirt-repellant
- Media-resistant
- High alternate bending strength
- Best price/performance ratio
- Self-lubricating



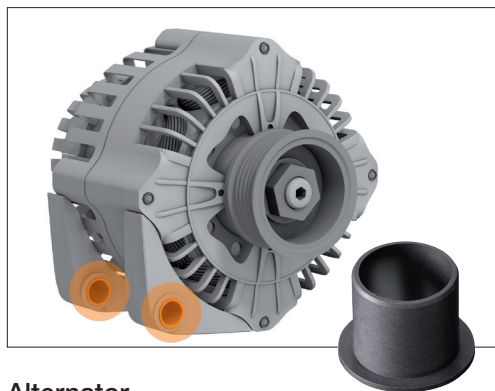
## Throttle valve

iglide® X6 replaces PTFE-coated aluminum bushing

- Plastic shafts possible
- Media-resistant
- No contact corrosion
- Cost-effective



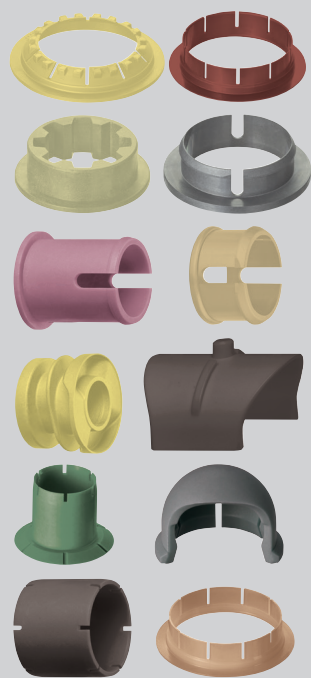
# the car and why?



## Alternator – V-belt tensioner

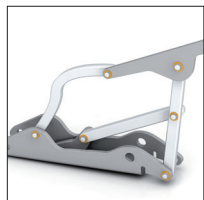
iglide® G300 replaces metal bearings

- Vibration-dampening
- Corrosion resistant
- Wear resistance under sustained oscillations

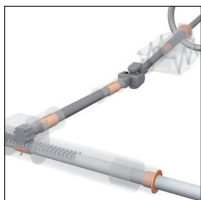


[blog.igus.com](http://blog.igus.com)

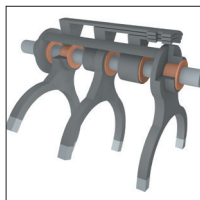
## Further potential bearing points in the vehicle



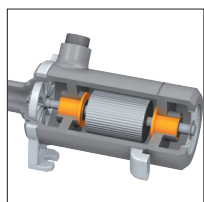
Hinge systems



Steering system



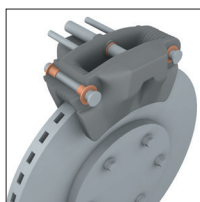
Gears



Water pump



Undercarriage



Brake calipers

To avoid risking the German Association for Technical Inspection's (TÜV) approval, it was not possible to retrofit safety and crash-related bearings in our small car, including bearings in the chassis, brake system, steering and also in the hinges and seat systems.

Around the world with plastic bearings from igus®:  
**iglide® on tour –**  
**more than 20 countries in 9 months**

Follow the journey at: [igus.com/blog](http://igus.com/blog)  
to find out when it will be at a location near you



## ASEAN REGION

India  
China  
Japan  
Korea



## AMERICAS

Brazil  
USA  
Canada

## EUROPE

Portugal, Spain, France, Switzerland,  
Italy, Austria, Czech Republic, Poland, Sweden,  
Denmark, Netherlands, Belgium, Great Britain,  
Motek in Stuttgart, Germany

### Return home:

Birthday party to celebrate the  
50<sup>th</sup> anniversary of igus® in Cologne, Germany



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