

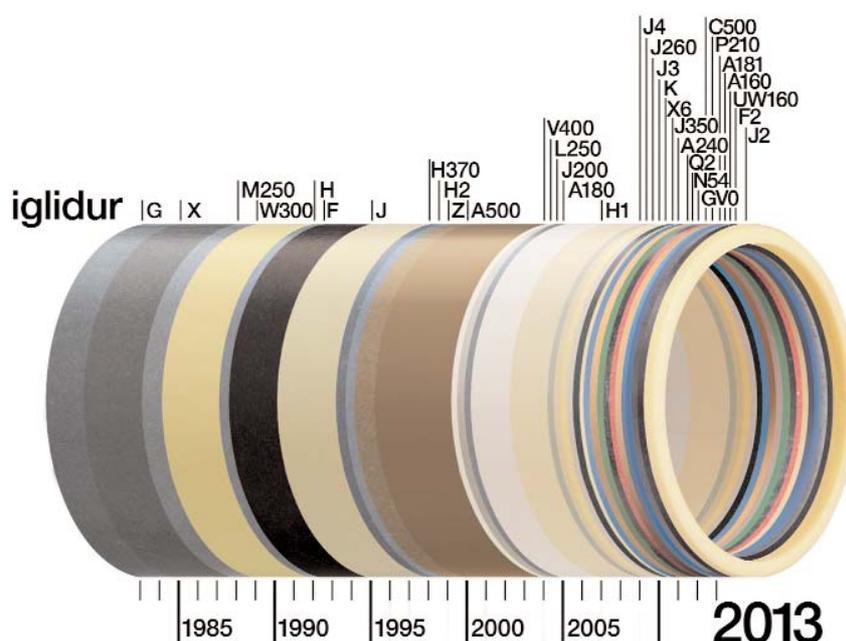
30 years iglidur plain bearings: From a simple plastic bushing to high-tech machine element

Cologne/Düsseldorf, 16th of October 2013 - The polymer material "igidur" from igus celebrates its 30 year anniversary on the K: Three decades ago, igus presented its first iglidur polymer plain bearing - a lubrication and maintenance-free plastic bearing for dry running applications. Due to decades of research with the plastic material and its tribological properties (optimized for friction and wear characteristic) today igus has the worldwide largest programme of tribo-optimized plain, spherical and linear plastic bearings and offers a reliable lifetime calculation online.

The core technology of the igus brand is tribo polymers for 49 years. Unlike other materials it is possible to change and customize the features of plastics. Polymers offer tremendously more possibilities to fulfil the individual specifications of machine applications in comparison to metal.

Three decades iglidur: 40 materials, 12,000 articles available from stock

For this reason, for the first time in 30 years the plastic experts have introduced polymer plain bearings under the name of iglidur: The particularly shock-resistant and long-fibre-reinforced polymer iglidur G became a pioneer among the now existing 40 different iglidur materials. Today the company has the worldwide largest programme of tribo-optimized plastic bearings with more than 12,000 different articles. The spectrum ranges from cheap iglidur all round bearings over FDA conform bearings up to high temperature and under water bearings. Millions of iglidur plain bearings are replacing metallic bushings that require lubrication. They are used across all branches of industry: in cars, machine tools, household appliances, pumps, fitness equipment, mountain bikes and in medicine technology and aerospace equipment.



Picture PM4613-1:

30 years ago, the tribo polymer expert igus presented its first lubrication and maintenance-free polymer plain bearing under the name of iglidur: iglidur G became pioneer for the 40 different iglidur materials with specific features that exist today. (Source: igus GmbH)

Maintenance-free dry run: self-lubricating polymer plain bearings

All iglidur high-performance plastics are designed the same way. Basis is a thermoplastic matrix material. The addition of enforcing fibres increases the pressure resistance. Integrated solid lubricants grease the bearings independently and therefore lower friction. Due to the integrated solid lubricants, iglidur plain bearings don't need to be lubricated. Millions of microscopic particles are embedded in tiny chambers inside the matrix material and from there dispensed in very low quantities. All plain bearing components are not applied in layers, but homogeneously mixed with each other. The result is very good wear behaviour for any kind of movements.

Research and development for durable and safe machines

igus continuously develops new materials and products with the aim to increase safety, durability of machines and to lower costs at the same time. Interacting surfaces in relative motion are studied daily in the company owned laboratory. This way engineers from igus annually develop about 100 new plastic compounds with different qualities such as temperature or chemical resistance, moisture resistance or clean room suitability. Driving force of this innovative power are worldwide existing damages at machines and plants, due to friction and wear. Behind the strong engagement in research and development there is the igus vision of "motion plastics": Plastic components that move machines safely over a long period of time.

Always the right material - calculable online

The durability, friction and wear features of all iglidur high performance materials are continuously tested in the 1,750 m² laboratory. In 2012 alone, 10,000 plain bearing tests have been carried out. This know-how about the tribological features of polymers grew over decades and is documented in a unique database. Test results of material research are directly entered into the online tools. With the online tools you can directly determine the ideal bearing material and calculate exactly the lifetime of the individual components. In addition, the "offline" version in form of the dry-tech sample box is available to all customers as of now: Thanks to the templates included, different materials can be filtered according to different criteria such as temperature, chemical resistance of foodstuff contact as well as in the online-configurator. That way, the optimal material for an individual application can be determined.

The dry-tech sample box can be ordered at www.igus.eu/box.



Picture PM4613-2:

Online or offline: Thanks to the dry-tech sample box and the online tools, the user can quickly find the most appropriate iglidur plain bearing for their application.

(Source: igus GmbH)

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About igus®:

The igus GmbH is a world's leading manufacturer in the field of energy chain systems and polymer plain bearings. The family-run company is based in Cologne, represented in 29 countries and contracts 2,200 employees worldwide. In 2012 igus generated a turnover of 399 million Euro. igus operates the largest test laboratories and factories in its industry to offer customers innovative and tailor-made products and solutions within the shortest time.

The terms "igus, chainflex, readycable, easychain, e-chain, e-chainsystems, energy chain, energy chain system, flizz, readychain, triflex, twisterchain, invis, drylin, iglidur, igubal, xiros, xirodur, plastics for longer life, manus, vector" are legally protected trademarks in the Federal Republic of Germany and, where applicable, in some foreign countries.