

## **Tribo TX2 plain bearings reduce wear in high load applications by 3.5x**

**Lubrication-free and maintenance-free high-load material iglidur TX2 demonstrates 3.5-fold improved wear performance in tests.**

Especially for high-load applications in the construction, machinery, or agricultural industries, igus can now offer the new Tribo (tribologically optimized) material iglidur TX2, which works without lubrication. Even smaller excavating machines still need about 50 litres of lubricant per year with metal bearings. The wound plain igus bearing can withstand particularly high forces and increase wear resistance by a factor of 3.5 in load areas with more than 100 MPa surface pressure.

Machinery and vehicles working in agriculture, the construction industry and mining are exposed to challenging environmental conditions every day. Cold, heat, dust or dirt have a large effect on the moving parts. Motion plastics specialist igus offers an alternative to commonly used metallic solutions with its plain polymer bearing technology, and iglidur TX2 is a new material for fibre wound bearings that complements the range of injection-moulded bearings in the high-load range.

### **High load, low wear**

Tribo plain bearings made of high-resistant fibre are used where particularly high loads occur. Here, the high strength fibre wound bearing TX2, which has a specially woven shape, ensures maximum resistance and enables a maximum permissible compressive strength of 400 MPa (megapascals).

The newly developed material was extensively tested on the indoor and external test stands in igus's 3,800 sq m test laboratory. Swivel tests on hard chrome-plated shafts showed that iglidur TX2 is about 3.5 times more wear-resistant than the standard high-load material TX1. Like all iglidur plain bearings, iglidur TX2 is self-lubricating and dry running, so dirt cannot become stuck at the bearing points. This reduces maintenance and repair costs as well as machine failures due to lack of lubrication.

Since the material is also temperature, chemical and moisture resistant, iglidur TX2 plain bearings can be used in many other areas. Due to the corrosion-free properties, as well as good seawater resistance, they can also be used in moving applications in the marine sector, for bearings of up to 2,800 millimetres in diameter.

Whether underwater or on land, the use of iglidur TX2 always considers the increased demands on sustainability. "According to operators, even a small excavator needs between 50 and 60 litres of lubricant per year," says Robert Dumayne, dry-tech director at igus UK. "The fact that iglidur TX2 plain bearings do not need to be lubricated means that the customer benefits in three ways: not only does it save the costs of oil or grease, and maintenance time, but using these bearings also avoids lubricants entering the environment." iglidur TX2 is available as a standard product from May in diameters of 20 to 80 millimetres directly from stock.

Watch iglidur TX2 in the news video at:

<https://www.youtube.com/watch?v=36S0nuf3w2w>

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**Picture PM2421-1**

**caption:**

Lubrication-free, high-strength, wear-resistant: The new heavy-duty material iglidur TX2 saves costs and extends the service life of construction and agricultural machinery. (Source: igus)