

## **Safe sorting even in heat: New igus material for the food industry**

### **Electrostatically dissipating iglidur AX500 tribopolymer ensures maintenance-free, food industry applications**

In the food and packaging industry, sorting and packing zones are subject to constant movement of goods and temperature changes. For these storage mechanisms to perform flawlessly, long-lasting plain bearing solutions are required that can withstand friction and heat long-term. Another challenge is the creation of electrostatic charge. igus has now developed a new wear-resistant material, iglidur AX500, for high temperature applications that also has electrostatic discharge properties.

How exactly do 10 grams of gummy bears end up in a small bag? Here, so-called dosing systems with highly sensitive mechanisms are used. They portion thousands of bags in no time at all using slides and ribbons to partition the amounts. The bagged sweets are then packed into a box. All these packaging materials are exposed to wear and tear in a high speed handling system.

Plain bearings made of the new high-performance plastic iglidur AX500 help to make the bearing points maintenance-free and durable. The new material is electrostatically dissipative and this ensures that the bags don't stick to each other and that employees do not get receive a static shock. Even in very dusty environments, for example in processing flour, a spark can lead to dust explosions. These sparks can take the form of small voltage arcs if moving machine parts are not electrically dissipative.

### **Safe and wear-resistant storage even at high temperatures**

igidur AX500 is also very suitable for high temperature applications, so it can be used in ovens or in bottle cleaning. Due to its good chemical resistance, aggressive cleaners cannot harm iglidur AX500 bearing or parts. Contact with food is also no problem for this material, because the tribologically optimized polymer requires no additional lubrication due to embedded solid lubricants. It also complies with EU Regulation 10/2011 on the safety of plastics that come

in contact with food. Compared to lubricated stainless steel bearings, iglidur AX500 plain bearings are not only maintenance-free, but are also a more cost-effective and lighter solution.

**Wear test on the test bench**

igidur AX500 has better wear properties than the established long distance food industry material, iglidur A500. In tests in igus's 3,800m<sup>2</sup> laboratory in Cologne, on the wear of iglidur A500 and iglidur AX500 rotating on stainless steel shafts, the new material recorded up to three times better wear and tear.

**Special dimensions from injection moulding available in a few days**

igus currently offers the new material in the standard dimensions of six to 20 millimeters in diameter, with and without a waistband. For special dimensions required within a very short time, the customer can use the FastLine service. By expanding its in-house mould tool capability, igus can now make-to-order and deliver iglidur plain bearings in special dimensions at cost-effective prices within a few days.

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**caption:**



**Picture PM3721-1**

With iglidur AX500, igus has developed a new wear-resistant material for the food industry that is electrically dissipative and can also be used at high temperatures.

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