

Clean, safe, detectable: New igus tribo polymers for food contact

The motion plastics specialist relies on optically and magnetically recognisable materials for plain and spherical bearings

Media resistance, lubrication-free and corrosion-free: these are the requirements machine components in the food industry have to meet today. In order to be able to quickly identify broken pieces in the event of damage to a system, igus has now developed two new optically and magnetically detectable materials for its plain and spherical bearings: the iglidur FC180 and igumid FC. The materials comply with FDA and EU10/2011 regulations and are therefore ideal for use in the food industry.

The detection of foreign bodies plays a major role in the production and packaging of food to ensure the perfect quality of the products and to prevent contamination. Therefore, igus has now developed the tribologically optimised plain bearing material iglidur FC 180 (FC = "Food Contact") specifically for food contact. The new material is visually detectable by its blue colour as well as by metal detectors due to the inclusion of appropriate, food-compatible additives. In this way, broken pieces can be quickly detected and removed in the event of damage to the system. As a result, the purity of the product is secured and costly product recalls are prevented. The new material complies with the specifications of the FDA and EU Regulation 10/2011 and can therefore be used in direct food contact. "Its low moisture absorption and lubrication-free property are additional criteria that speak in favour of the optimum suitability of the material in applications in the food technology, beverage and packaging industries," explains Lars Braun, Head of Packaging Industry Management at igus.

Metal detectability also for igubal spherical bearings

In the igubal spherical bearings range, the motion plastics specialist now relies on a new detectable material. With the housing material igumid FC in combination with iglidur FC180 as spherical ball material, now igus has for the first time self-adjusting igubal bearings, which are approved for direct food

contact. The excellent detectability of the materials was also confirmed by Sesotec GmbH, specialist for foreign body detection and manufacturer of metal detectors for the food industry. Even the smallest fragments of 0.0139 g (iglidur FC180) or 0.0157 g (igumid FC) could still be identified on a conveyor belt when passing through the metal detector INTUITY. The new vibration dampening bearings are resistant to corrosion and media due to their polymer base, allowing them to withstand the cleaning with water and many cleaning agents. As a result, equipment manufacturers and operators in the food industry can now quickly and easily equip their machines with a wide range of bearing solutions from igus while saving twice as much. This is because plastic plain bearings don't have to be serviced and are much more cost effective to buy than solutions consisting of sealed stainless steel bearings with food-grade lubricants.

Image captions:



Picture P3519-1

Food compliant, lubrication-free and detectable: With iglidur FC180 and igumid FC, igus has now developed two new materials for its plain and spherical bearings. (Source: igus GmbH)



Picture PM3519-2

In metal detectors of Sesotec GmbH even fragments of less than 0.02 g of the new detectable materials of igus were detected. (Source: igus GmbH)

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ABOUT IGUS:

igus GmbH is a globally leading manufacturer of energy chain systems and polymer plain bearings. The Cologne-based family business has offices in 35 countries and employs 4,150 people around the world. In 2018, igus generated a turnover of 748 million euros with motion plastics, plastic components for moving applications. igus operates the largest test laboratories and factories in its sector to offer customers quick turnaround times on innovative products and solutions tailored to their needs.

The terms "igus", "Apiro", "chainflex", "CFRIP", "conprotect", "CTD", "drylin", "dry-tech", "dryspin", "easy chain", "e-chain", "e-chain systems", "e-ketten", "e-kettensysteme", "e-skin", "flizz", "ibow", "igear", "iglidur", "igubal", "kineKIT", "manus", "motion plastics", "pikchain", "plastics for longer life", "readychain", "readycable", "ReBeL", "speedigus", "triflex", "robolink", and "xiros" are protected by trademark laws in the Federal Republic of Germany and internationally, where applicable.