

New long-life igus coating for food machinery

FDA-compliant polymer coating powder with four times longer service life than IC-01 boosts wear-resistance

Sheet metal and metallic parts in food processing are regularly exposed to friction and wear. Motion plastics experts igus has developed a new coating material to increase the service life of these components, by reducing friction and wear. The IC-05 tribo-polymer protects sensitive and small bearing points as well as sliding surfaces, it is coloured blue for high visibility and is approved for use in manufacturing by the Food & Drug Administration (FDA). In tests, the new coating returned four times' longer service life than the standard iglidur coating material IC-01.

Automated systems are essential in the food industry. But what happens if a bottle falls over in the filling line or a packet of soup gets wedged between moving parts and tears open? This can lead to unplanned plant shutdown, costing time and money.

Moving components with a low coefficient of friction are preferred to minimise plant damage and downtime. To give guide plates, metallic sliding parts or even parts with complex geometries high wear resistance, igus has now developed a new coating material especially for use in food machinery.

The high-performance IC-05 polymer complies with both FDA and EU10/2011 regulations and is therefore ideally suited for contact with food. Its blue colour makes it highly visible in a food processing environment. The superior material significantly reduces the coefficient of friction of the coated parts and increases the service life and availability of the equipment. It also improves product safety and reduces the costs of parts replacement.

No lubrication is ever required. The powder material can be applied onto the desired components, either by the customer or by igus. Layer thicknesses of 60 to 120 µm are possible. "Especially for places where there is no space for a plain bearing, a coating of the moving parts that are exposed to wear is a good idea", explains Rob Dumayne, Director of drytech in the UK.

Laboratory test reveals four times longer service life

igus tested the durability of the coated parts in its own 3,800 square metre laboratory . A part coated with IC-05 (FDA-compliant) was compared with an identical part coated with the standard material IC-01 in various test set-ups. The IC-05 component recorded four times longer service life. In addition to IC-05, igus offers five other coating materials for applications in the high-temperature range or with high chemical resistance.

Learn more about the igus coating materials at:

<https://www.igus.co.uk/info/plain-bearings-coating-iglidur>



Picture

Parts coated with IC-05 provide food and packaging manufacturers with FDA-compliant machine components that slide with less friction and that last longer.

(Source: igus)

About igus:

Based in Northampton in the UK and with global headquarters in Cologne, Germany, igus is a leading international manufacturer of energy chain systems and polymer plain bearings. The family-run company is represented in 35 countries and employs over 4000 people around the world. In 2019, igus generated a turnover of 764 million euros with motion plastics, plastic components for moving applications.

With plastic bearing experience since 1964, cable carrier experience since 1971 and continuous-flex cable experience since 1989, igus provides the right solution based on 100,000 products available from stock, with between 1,500 and 2,500 new product introductions each year. 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.

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