New igus SLS material for electrostatically conductive wear-resistant parts from the 3D printer

Lubrication-free tribo-polymer iglidur I8-ESD enables the cost-effective manufacture of durable special parts with no minimum order quantity

For safe and reliable production in the electronics and semiconductor industry, components are required that have electrostatically conductive properties. This is because even a small electric shock can destroy expensive production lines. igus has now developed a new stable material for the SLS method so that users can make their wearing parts with ESD properties flexibly and cost-effectively. The lubrication-free special parts made of iglidur I8-ESD can be printed and shipped within just few days.

Wear-resistant parts in the electronics and semiconductor industry are not only required to have a long service life but must also be electrostatically conductive, because a surge of electrostatic charge that is not dissipated by an insulating material can easily destroy the product. For the fast-additive manufacture of electrostatically conductive special parts, igus has now developed a new iglidur tribo-polymer. iglidur I8-ESD is the third material that igus offers for the SLS method. The advantages of this method are evident: the user has a great deal of design freedom and can make the component without any tool costs. Moreover, no plastic waste is produced as the excess powder can be used several times and printed parts can be recycled. The parts made of the new SLS powder - like all igus materials - need no additional lubrication and are very structurally stable. "With iglidur I8-ESD, we now include a 3D printing tribo-polymer in our product range that has the capability of electrostatic discharge this reducing the risk of static build up. In addition, the material is inherently black. As a result, subsequent colouring is not necessary, whereby costs are lowered and the delivery time is improved", explains Dean Aylott, Product Manager of Additive Manufacturing at igus UK. "The user receives a very durable component that comes with all the desirable ESD properties."

iglidur I8-ESD convinces with high wear resistance

The igus tribo-polymers undergo numerous tests in the igus 3,800 square-metre test laboratory. Here a pivoting test showed that the abrasion resistance of a sintered iglidur I8-ESD wear-resistant part is twice as great as that of a PA12 sintered component. iglidur I8-ESD was also convincing in a linear wear test. igus currently offers iglidur I8-ESD in the webshop as SLS powder for processing in the customer's own facility or for manufacture of a component in the igus 3D printing service. For the latter purpose, the user can simply send the STEP file for the part required to igus. Here, the product is printed and shipped within three days, and there is no minimum order quantity. Interested parties can now order a free sample part at igus.co.uk/i8-esd-sample.

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igus resources:

- LiveChat with our technical team at igus.co.uk
- Follow us at twitter.com/igusUK
- Watch our videos at igus.co.uk/YouTube
- Connect to us at igus.co.uk/Facebook
- Read our blog at blog.igus.co.uk

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 31 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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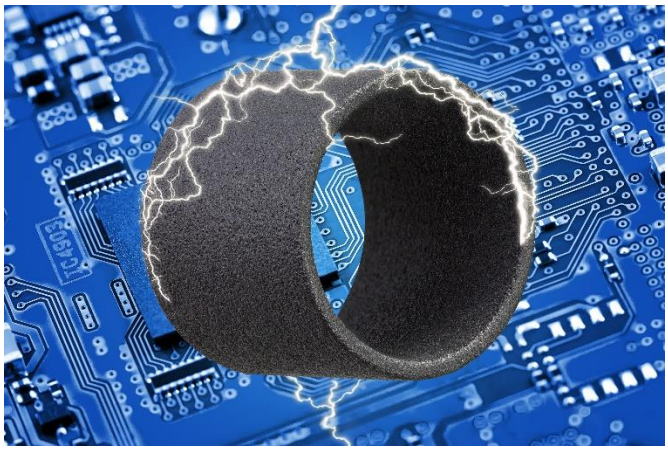
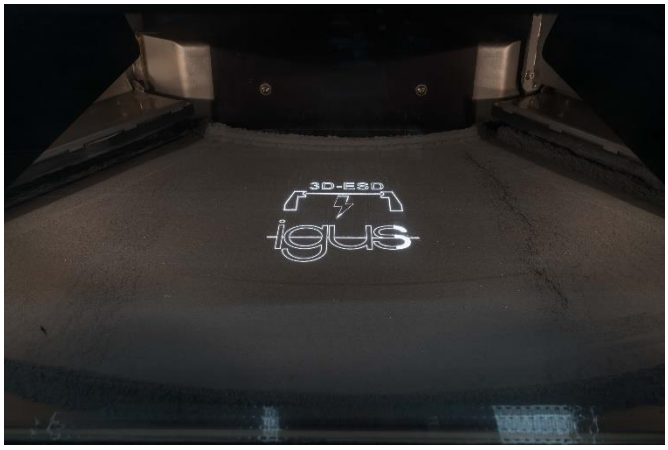


Picture PM2220-1

iglidur I8-ESD: electrostatically conductive SLS material for durable and abrasion-resistant 3D printed components.



Picture PM2220-2

With the SLS method, the new black high-performance polymer can be processed in a very short time.