

Video of the Week – igus tribo-filaments take on the soapbox challenge

In this week's video of the week, igus engineers compare the abrasion resistance of 3D-printed plastic parts made of iglidur I180 and standard ABS materials. However, to make the test procedure more exciting, the engineers decided to 3D print plastic plain bearings out of each material and insert them into the wheels of a soapbox car.

Under laboratory conditions, both wheels are set in motion spinning to simulate the soapbox car travelling down a steep hill at 26km/h ... that's 16mph. It isn't very long before the ABS bearing heats up and melts, which, in the real world of soapbox racing, would have resulted in the wheel detaching from the car putting the driver to an undignified standstill. Why the epic fail?

All tribo-filaments and SLS materials from igus, the motion plastics specialist, are up to 50x more abrasion resistant than standard 3D print materials. The heat generated from the friction on the ABS bearing melted the material in just over 8 minutes; even though a standard soapbox race usually lasts for less than a minute, results from the challenge confirm that igus 3D printed parts are suitable for use in real life applications. Ideal for prototyping and small production batches, igus printed components can also replace worn parts quickly, which helps reduce downtime.

While tribo-filament and SLS materials are available for on-site printing, igus also offers a rapid 3D print service. Through its online 3D print tool, www.igus.co.uk/3dprint, users can drag and drop their STEP design file to get instant pricing and, upon ordering, actual parts will be despatched within 24 hours, depending on the complexity and size of the printed component.

To watch the two materials taking on the soapbox challenge, please follow this link: www.igus.co.uk/tribo-filamenttest

For more information on igus products and to request free product samples, please contact us on 01604 677240. For regular updates, follow us on www.twitter.com/igusUK, watch our videos at www.igus.co.uk/youtube, connect with us at www.igus.co.uk/facebook or visit our blog on blog.igus.co.uk

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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 approximately 3,000 people worldwide. In 2015, igus generated a turnover of 552 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 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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