

Heavy Loads are No Problem for the New igutex TX3 Fiber-Wound Material

igus launches a new dry-running material, the endurance runner, which is ideal for heavy duty applications

STAMFORD, CT., UNITED STATES, April 25, 2023 /EINPresswire.com/ -- In applications with loads of more than 80Mpa, plain bearings made of thermoplastic materials can push their limits. igus®, the world leader in motion plastics, has expanded the existing range of standard plain bearings with the new igutex® fiber-wound plain bearing series. The series displays its strength in heavy-duty areas such as construction machinery or hoists. The latest development in the product family is the material igutex TX3. It offers an even higher running performance with high dynamic forces than previous igutex bearings.

With the igutex product family, igus has developed plain bearings made from high-strength fiber wound materials. They are used where very high loads occur and where injection-molded plain bearings may reach their load limits.

"This can be construction machinery, the agricultural industry, or applications in container cranes or the offshore sector," explains Uwe Sund, Product Manager for Heavy-Duty Bearings at igus GmbH.



Especially for applications with high dynamic forces, such as in hoists, the new material igutex TX3 offers an even higher running performance. (Source: igus GmbH)

Extremely strong filaments and their unique winding technology structure ensure maximum resilience. A robust fiberglass fabric serves as the outer shell, while a tribologically optimized inner layer reduces friction on the shaft and gives a smooth, gliding surface.

"Our igutex materials are ideal in applications that absorb up to 200MPa," explains Sund.

With the new igutex TX3, igus has now developed a material that offers an even longer service life, especially under extreme dynamic loads and where increasing and decreasing loads may occur, for example, in the hydraulic connections of excavator shovels.

igutex TX3 also enables the use of rough or soft shaft materials, such as Cf53. As with all [iglide](#)[®] plain bearings, igutex TX3 is self-lubricating and is completely dry-running. Solid lubricants, which are integrated into the gliding layer of the fiber-wound bearing, enable the best possible coefficients of friction without the need for external lubrication. Users can therefore save costs on oil, grease, and maintenance. Additionally, no lubricants are released into the environment, offering a sustainability element.

The new test winner

igutex TX3 was thoroughly tested at the indoor and outdoor test rigs in the igus test laboratory in Cologne. Tests showed that from among the igutex family, the igutex TX3 plain bearing on a Cf53 hard chrome-plated shaft achieved the best values in the pivoting application with 100MPa. The new igutex TX3 fiber wound plain bearings are in stock and are part of the standard product range with inner diameters of 20 to 80 millimeters. Custom-made products with additional diameters are also available on request.

To learn more about igutex TX3 dry-running bearings, visit: <https://www.igus.com/info/igutex-tx3>

Thomas Renner

igus

trenner@mercurymc.us

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