



The TXM cage -

A good alternative to the TA cage when grease lubrication is used

A new generation of cages has proved a success.

A new design has been added to the range of cages for GMN spindle ball bearings - [the TXM cage](#).

This cage features a [new material](#) and an [optimized geometry](#). The material of this injection-molded cage is [Polyetheretherketone \(PEEK\)](#), a partially crystalline, high temperature resistant thermoplastic material which is reinforced with carbon fibres. Compared to conventional material used for TA cages (textile reinforced resin) this results in a number of advantages:

- The [maximum permissible operating temperature is 250°C](#) while conventionally it is 120°C (150°C for a short period). However, this material offers a high deformation stability under load at these high temperatures.
- Apart from this, it is used in [hybrid bearings](#) and in case of [grease lubrication](#) it is recommended due to its high resistance to wear.
- An important feature is the improvement of the lubrication system. The [special geometry of the ball pockets](#) in case of grease lubrication causes the lubricant to be retained in the area between balls and cage.

[An improved lubrication enhances the service life and increases the maximum speed.](#)

