

July 25, 2023

Toshiba Materials Co., Ltd.

Toshiba Materials' Major Investment in Second Production Facility Will Boost Silicon Nitride Ball Production

Yokohama, Japan—Toshiba Materials Co., Ltd. (President & CEO: Takao Shirai) today announced a major investment in a new production facility that will significantly boost production capacity for silicon nitride balls. The facility will be constructed at the company's Oita Operations in northern Kyushu, Japan, and the 7-billion yen project (approx. US\$50 million) is expected to come online in January 2026.

Continued advances in automobile electrification require performance improvements and solutions that go beyond higher voltage batteries and shorter charging times. One measure to improve performance is to integrate motors, inverters and decelerators. Although this increases the risk of electrolytic corrosion^[1] in motor bearings^[2], it is a problem that can be overcome with hybrid bearings with ceramic balls with steel inner and outer races. The added advantages of excellent strength, superior wear resistance and insulation properties are increasingly positioning ceramic balls as the solution of choice.

Toshiba Materials is proactively investing in increased production of silicon nitride balls for electric vehicles. In July 2022,^[3] the company announced a production expansion at its headquarters site in Yokohama that boosted production by 50%. When the new Oita facility reaches full capacity, production capabilities will be 2.5 times that of the 2022 level.

Toshiba Materials will continue stable supply of high quality products, and will contribute to increased use of environmentally friendly electric vehicles.



Silicon nitride balls / Artist's impression of the new factory

Notes

[1] Electrolytic corrosion: damage to a bearing caused by a current flowing through it.

[2] Bearing: A part that allows a shaft to rotate smoothly in a machine. Formed with an inner race, balls, and outer race.

[3] Toshiba Material's press release, July 19, 2022

<https://www.toshiba-tmat.co.jp/pdf/en/news/new20220719.pdf>

CONTACT: Administration Group
Toshiba Materials Co., Ltd. (Japan)
Tel: +81-(0)3-3457-4874
Fax: +81-(0)3-5444-9235
Mail: TMAT-sales@ml.toshiba.co.jp