November 5, 2020
Denka Company Limited

Production Capacity increase of Silicon Nitride and Strengthens Functional Ceramics Business

Denka Company Limited (headquarters: Tokyo, Japan; President: Manabu Yamamoto; hereinafter, "Denka") will increase its silicon nitride production capacity by approximately 30% compared to current capacity at its Omuta Plant (Omuta City, Fukuoka Prefecture) as part of a strategy to strengthen its thermal material business for xEV (*1).

Silicon nitride is a type of engineering ceramic with an excellent thermal shock resistance and high-temperature strength. Denka's production capacity and market share are one of the highest in the industry. Denka's silicon nitride is highly praised for its use in thermally conductive ceramics substrates for automotive inverters, ball bearings for wind power generators, and semiconductor production equipment due to its characteristic of high thermal conductivity, high intensity, corrosion resistance, and high reliability.

The popularization of xEV leads to an expansion of the thermal material market. Along with the expansion, there is an exponential increase in the demand for higher quality automobile parts and components with exceptional thermal conductivity and reliability. The increase in Denka's silicon nitride capacity aims at attending these new demands while providing a stable supply to current customers.

Denka is focusing its efforts on the field of the environment and energy, specifically 5G (*2) and xEV, as part of its actions to accelerate the growth of specialty businesses in the shift of its business portfolio stated in its Denka Value-Up management plan. As one of the top manufacturers of a broad array of functional ceramics, such as fused spherical silica, boron nitride (BN), Spherical Alumina and fluorescent materials on the basis of the fundamental technologies it has been developing since its foundation in 1915, including technologies for the high temperature firing of inorganic materials, nitriding reactions, and particle size control, Denka is actively involved in the development of new materials, including the Spherical Magnesia it released last month.

Denka aims to achieve an operating profit of ¥20 billion yen in fiscal 2022 in the fields of the environment and energy by moving forward with the development of new materials beyond functional ceramics including LCP film for 5G, low dielectric materials, and others, while also endeavoring to stably supply ultra-high purity acetylene black for lithium-ion batteries, demand for which is expected to grow in the future.

Using the SDGs as signposts, Denka will expand the use of 5G and xEV increase communication speeds and improve the functionality of electric vehicles and will work to accelerate the growth of its specialty businesses.

1/ Overview

・Business site: Omuta (1 Shinkaimachi, Omuta-shi, Fukuoka)

・Usage of funds: to increase capacity through the expansion of facilities

・Production capacity: an increase of 30% compared to current capacity

・Start of operations: second half of fiscal 2022 (planned)

Silicon Nitride

2/ Impact on Consolidated Financial Results for FY2020

The investment has no impact on Denka's consolidated financial results for the fiscal year ending on March 31, 2021

(*1) xEV is an umbrella term encompassing battery electric vehicles (BEV), hybrid electric vehicles (HEV), plug-in hybrid electric vehicles (PHEV or PEV) and fuel cell electric vehicles (FCEV or FCV)

(*2) 5G refers to the 5th generation of mobile communication systems

References:

・"Denka Releases Advanced Ceramics, "Denka Spherical Magnesia" for 5G and xEV" ～New thermal solution for strengthening the environmental and energy sectors , October 30. 2020～
https://www.denka.co.jp/eng/storage/news/pdf/302/20201009_denka_5g_xev_en.pdf

About Denka:

Denka is a chemical manufacturer headquartered in Chuo-ku, Tokyo. The company specializes in developing business activities on a global scale across a wide range of fields, from inorganic and organic chemicals, to electronic materials and pharmaceuticals. Founded in 1915, Denka has steadily continued to develop and manufacture products that contribute to the development of society by fully utilizing its unique concepts and technological capabilities. Upholding its corporate slogan, "Possibility of chemistry," the company and its president, Manabu Yamamoto, are committed to contributing to the sound development of the society while sincerely tackling the challenges that the society is now confronting.

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