



January 21, 2019
Denka Company Limited

Denka to Undertake Strategic Investment Aimed at Expanding Its Operations Related to Thermally Conductive Materials for Automotive Applications in an Effort to Secure Greater Production Capacity and a Leading Position in the Global Market

Denka Company Limited (headquarters: Chuo-ku, Tokyo; president: Manabu Yamamoto; hereinafter “Denka”) hereby announces that the Company has decided to undertake capital investment totaling approximately ¥8 billion to boost its capacity to produce thermally conductive materials in order to swiftly accommodate growing demand resulting from a switchover to electric vehicles (EVs) in automotive industries worldwide. Through this move, Denka aims to solidify its position as a leading manufacturer of silicon nitride ceramic substrates and spherical alumina and thereby play a pivotal role in the market for thermally conductive materials for use in EVs and other eco-friendly vehicles, which are becoming increasingly popular in regions around the world.

In line with the Denka Value-Up management plan, Denka has set a target for fiscal 2022 that puts income from specialty businesses at 90% of consolidated operating income. Looking ahead, Denka will engage in timely investment aimed at securing its capacity to accommodate future demand growth and achieve further expansion in the field of environment and energy, one of the priority fields identified in the aforementioned plan. Details follow.

1. Capital Investment Aimed at Boosting Our Ceramic Substrate Production Capacity

Background and Overview

Denka has secured a strong track record as a ceramic substrate manufacturer, dating back approximately 30 years, by effectively employing an integrated production system that includes the manufacture of raw material powder (silicon nitride powder). At the same time, Denka has garnered highly favorable customer reviews for its ability to deliver solutions tailored to diverse needs thanks to a product lineup that encompasses a broad range of offerings, including silicon nitride, aluminum nitride and metal substrates.

In particular, Denka’s highly functional silicon nitride ceramic substrates boast superior thermal conductivity and heat-cycle reliability. In recent years, these products have become sought after for use as insulation and thermal dissipation components for motor-driving power modules installed in eco-friendly vehicles.

With this in mind, Denka intends to introduce a cutting-edge pre-production automation process to enhance its silicon nitride ceramic substrate manufacturing system and thus increase its production capacity threefold (compared with the 2018 level), with

the aim of solidifying its position as a leading manufacturer of these products.

Outline of Capital Investment

Business site:	Omuta Plant (Omuta, Fukuoka Prefecture)
Usage of funds:	Construction of a new building, the installation of calcining furnaces and machining equipment, etc.
Investment amount:	Approximately JPY 4 billion
Operational kickoff of new facilities:	The second half of fiscal 2020

2. Capital Investment Aimed at Boosting Spherical Alumina Production Capacity Background and Overview

Today, Denka boasts unparalleled production capacity advantages over other companies with regard to spherical alumina for use in thermally conductive materials. This is thanks to the application of unique fusing technologies that it has accumulated over the course of its operations as a market-leading spherical fused silica manufacturer.

Meanwhile, Denka believes that going forward, the Company will face growing needs for its spherical alumina among its customers due to growth in demand for thermal solutions for use in lithium ion batteries, which constitute key components of eco-friendly vehicles, and various driving-control systems as well as the widespread use of electronic devices equipped with ever more sophisticated functions.

With this in mind, the Company aims to undertake capital investment in its consolidated subsidiary in Singapore to establish new spherical alumina production lines. To date, Denka's spherical alumina production has been concentrated at its Omuta Plant; by securing a second, separate manufacturing site, the Company is positioning itself to formulate more robust business continuity plans (BCPs). The move is intended to raise Denka's overall spherical alumina production capacity fivefold (compared with the 2018 level). In such ways, Denka will establish an even stronger supply structure capable of dominating the global market and accommodating burgeoning demand.

Outline of Capital Investment

Business site:	Denka Advantech Pte. Ltd. (Singapore)
Usage of funds:	Construction of spherical alumina production lines and warehouses, etc.
Investment amount:	Approximately JPY 4 billion
Operational kickoff of new facilities:	The first half of fiscal 2021

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