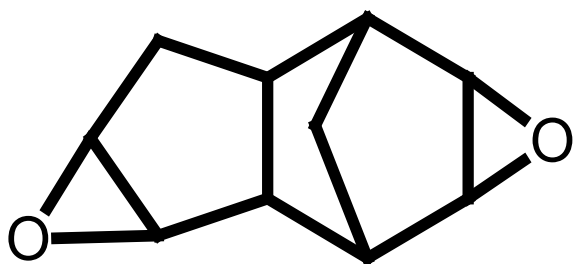


January 25, 2024

Japan Material Technologies Corporation

JMTC succeeded in pilot-scale production of alicyclic epoxy DCPD-DE

Japan Material Technologies Corporation (Head Office: Chuo-ku, Tokyo; President: Koyu Urata; "JMTC") has succeeded in pilot-scale production of alicyclic epoxy DCPD-DE (dicyclopentadiene diepoxide). JMTC has been selling samples of DCPD-DE since June 2020, and we have been working to establish a supply system, having received many inquiries mainly for electronic material applications. With this scale-up, JMTC established a supply system that can meet the demand of more than 1 ton per year through build-to-order production, and will start sample sales of mass-produced prototypes in units of kilograms.



Chemical structural formula of DCPD-DE



Scale-up product of DCPD-DE [L]1kg [R]5kg

DCPD-DE is a white powder material with an alicyclic structure characterized by transparency and heat resistance. It features a low dielectric constant and relatively high T_g among alicyclic epoxies, and can be blended into epoxy compositions to improve electrical properties without compromising T_g. These characteristics are expected to be utilized in adhesives and encapsulants for electronic materials.

JMTC has developed an industrialized manufacturing process by applying a catalyst for which we have exclusive licensing rights and epoxidation technology for which we hold intellectual property, and has established a simple and easy-to-scale-up production technology on a pilot scale. This has enabled to achieve high reaction selectivity and mass produce DCPD-DE with high purity (99.5% or higher) and chlorine-free (below detection limit). (Product introduction website and product brochure: [DCPD-DE](#))

This technology is expected to be applied not only to DCPD but also to epoxidation of various materials such as tetrahydroindene with alicyclic structure. Last October, JMTC acquired related intellectual property, and is ready to respond to individual needs for high-functional epoxy compounds. (Related press release: [JMTC concludes for the transfer of intellectual property rights related to epoxy compound production technology](#))

For inquiries about DCPD-DE and epoxidation using this technology, please contact us through the inquiry form on the JMTC website (<https://www.jmtc.co.jp/en/>).