

Denka Investing in Ares Materials to Expand High-functional Materials Business

Denka Company Limited (Head Office: Chuo-ku, Tokyo; Representative Director, President: Toshio Imai) has invested in Ares Materials Inc. (Head Office: Plano, Texas, USA, CEO: Arreaga David; hereinafter referred to as Ares Materials), a startup company developing ene-thiol(*1) optical films, through a Corporate Venture Capital (CVC) fund jointly managed with Pegasus Tech Ventures.

Ares Materials has developed a design technique that utilizes materials informatics(*2) for using enethiols as a raw material and possesses the technology to produce high-performance optical films using the design technique. We have been considering collaboration with Ares Materials. Ares Materials' optical film manufacturing technology uses a unique UV curing process that does not use organic solvents or heat, and the raw materials do not contain any PFAS(*3), so it contributes to reducing environmental impact and CO₂ emissions, and it is possible to produce optical films that attain both low-cost and optical properties.

Through our investment in Ares Materials, we at Denka Company Limited are to establish a partnership in joint development for improving display performance of displays by utilizing the HARDLOC OP Series enethiol adhesives, our proprietary technology, and Ares Materials' optical films in combination and in market development, with the aim of social implementation in the flexible display field.

Based on our Mission 2030 management plan, we at Denka Company Limited set up the CVC fund in January last year in order to promote the creation of new businesses through investment in and/or tie-up with startups possessing their own cutting-edge technologies from around the world. We at Denka Company Limited have planned approximately USD 100 million of capital spending in initiatives through CVC by FY 2030. Denka Company Limited will continue contributing to people's daily lives and society by applying its world-class chemistry know-how based on the Purpose of Mission 2030: "Make the world a better place as specialists in chemistry."

(*1) Enethiol reaction

Refers to a reaction between a thiol (R-SH) and an alkene (C=C-R). It is a method that allows molecules to be easily bonded without using complex chemical synthesis methods when synthesizing molecules with various functions. A typical example is "click chemistry," which won the Nobel Prize in Chemistry in 2022.

(*2) Materials informatics

Efforts to improve efficiency by using information science technology for material development. It is a method that uses digital technologies, such as big data and AI, to analyze huge amounts of experimental and paper data to predict material combinations and manufacturing methods.

(*3) PFAS

A general term for organic fluorine compounds having carbon-fluorine bonds, referring to perfluoroalkyl compounds and polyfluoroalkyl compounds. It has been found that PFAs do not decompose easily in the natural world and accumulate in water, etc., and it has also been pointed out that they are toxic to humans, so their use has been banned or restricted by international treaties.

<About Ares Materials>

- Head Office: Plano, Texas, USA
- Business outline: Design, development, sales, and licensing of enethiol optical films using materials informatics
- Official website : <https://aresmaterials.com>



[Reference: Previous press releases related to this topic (Our official website)]

- January 17, 2023: Signing ceremony was held for the establishment of Corporate Venture Capital (CVC)
https://www.denka.co.jp/eng/storage/news/pdf/476/20230117_denka_cvc_en.pdf

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