Sumitomo Bakelite Co., Ltd. to Begin Production of Epoxy Resin Encapsulation Materials for Automotive Use in Europe

Tokyo, Japan – May 25, 2020 Sumitomo Bakelite Co., Ltd. (TOKYO:4203  HQ: Shinagawa-ku, Tokyo, President and Representative Director: Kazuhiko Fujiwara) will open a new manufacturing line to produce epoxy resin encapsulation materials for automotive use in its Belgian production subsidiary, in order to meet increasing demands in the mobility field in Europe.

[Overview of Sumitomo Bakelite Co., Ltd. compounds for encapsulation]

Sumitomo Bakelite Co., Ltd. semiconductor encapsulation materials have continued to enjoy a significant share of the worldwide market for over 30 years since the 1980s, and are used widely throughout society in IT equipment (such as PCs, smartphones, and servers), as well as in consumer electronics, transport equipment, and industrial equipment. These mainline products, which account for approximately 20% of the company’s sales, are part of an extensive lineup of products with features particularly suited for today’s cutting-edge technology materials undergoing particularly rapid technological innovation. They are manufactured in locations near semiconductor assembly manufacturer factories in locations such as Japan, China, Taiwan, and Singapore. The company has also established open labs in Japan, Europe, North America, and China for use in jointly developing semiconductor package prototypes together with customers, and boasts an organization capable of providing opportunities for industry cooperation on a worldwide scale.

[New pillars, and the development of an automotive applications business]

Recent advances in IT have continued to spur demand for Semiconductors. This demand is expected to only increase in 2020, with the adoption of the new “5G” communication standard. Meanwhile, the rapid spread of electric automobiles throughout the world has seen the introduction of “CASE” as a new keyword in the industry. Use of Sumitomo Bakelite Co., Ltd. encapsulation materials has continued to grow mainly for use with semiconductors. However, efforts to market to automobile parts manufacturers inside and outside Japan has spurred the creation of new demand, and Sumitomo Bakelite Co., Ltd. now also focuses on the following products for automotive use as new applications for these products.
• Materials for rotor magnet fixation on e-Motor.
Although liquid resin has traditionally been used as a material for fixing magnets inside the rotors of e-Motor, which is used in electric vehicles (EV) and hybrid vehicles (HV), compounds for encapsulation can be used to fix the magnet more strongly in place, which can allow motors to run faster and can help to both increase output and reduce size.

• Over-molding materials for ECU (Electronic Control Unit)
ECUs, which perform control for automotive components such as ICE, actuators, and transmissions, have traditionally taken the form of electronic circuit boards equipped with semiconductors and other parts covered with ADC, and have been fixed in place using resin made from silicone or other materials. However, Sumitomo Bakelite Co., Ltd. materials can be used to encapsulate the entire circuit board (rather than each individual semiconductor), which can allow for the use of smaller and lighter ECUs, and can even help to reduce production times.

Sumitomo Bakelite Co., Ltd. has already made progress in developing materials ideal for mobility applications and sees this field as a pioneering opportunity, having already established its “Mobility Materials Sales Department” and prepared a sales promotion organization in April. Going forward, the company plans to develop markets for both “semiconductor encapsulation compounds” and “encapsulation compounds for automotive use” as two pillars supporting its business.

[Start of production in Europe]
Europe is the birthplace of the automotive industry, and is home to parts manufacturers with a worldwide presence. Sumitomo Bakelite Co., Ltd. has a history of producing phenolic resin and molding compounds in Belgium (two companies) and Spain (one company), and of producing and selling materials for use in automobiles and thermal insulation materials. Although the spread of the novel coronavirus has resulted in widespread social disruption in Europe, the company has recently reached the decision to begin production in its Belgian subsidiary (Vyncolit) in anticipation of a “post-corona” world.

(Overview) Manufacturing Company: Vyncolit NV (Gent, Belgium)
Start of operation: Early 2022
Production capacity: Several thousand tons/year

The company is aiming to reach sales in the “automotive encapsulation compound” market of 12 billion yen by the 2025 fiscal year, including production in Europe.

For inquiries on this product:
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