
For immediate release

BASF and DONG-IL CNE to develop polyurethane composite applications for building and infrastructure industries

- **Partners sign agreement to jointly develop ultra-light utility poles, oil and gas pipes**
- **Supports growing demand for more durable, lightweight material solutions**

Seoul, Korea – November 2, 2017 – BASF and DONG-IL CNE today entered a strategic Memorandum of Understanding (MoU) agreement to develop innovative, lightweight utility poles and oil and gas pipes, as well as other solutions for advanced infrastructure. As the initial project of the partnership, DONG-IL CNE will provide its manufacturing expertise to produce BASF branded utility poles made with BASF’s Elastolit® polyurethane (PU). The partners will also explore other lightweight applications to meet the growing demand for stronger, lighter composite products for the building and infrastructure industries.

“We are delighted to partner with DONG-IL CNE to identify new opportunities and tap into the global composites market, which is estimated to reach almost US\$40 billion by 2021,” said Andy Postlethwaite, Senior Vice President, Performance Materials Asia Pacific, BASF. “Our ultra-light utility poles will help provide uninterrupted electricity to cities across Asia, especially in areas that are prone to severe weather conditions, such as Philippines, Indonesia, Malaysia, Korea, Japan and Australia.”

Under the agreement, BASF and DONG-IL CNE will also explore several new technologies including PU pultrusion, PU with carbon fiber filament winding, as well as oil and gas pipes with a PU filament winding process.

“By combining BASF’s broad competencies in composite materials and technologies with our integrated manufacturing capabilities, our partnership will

create new material applications that will help address urban infrastructure challenges brought by population increases across Asia,” said Choi, Young Ki, President, DONG-IL CNE. The company has extensive manufacturing experience in the high-performance composite material business in Asia, covering automotive, shipbuilding, building and civil engineering construction industries, as well as in the chemical industry.

Utility poles made with PU and enabled by BASF’s unique filament winding technology, are extremely lightweight and robust yet flexible. The poles can withstand severe weather conditions such as typhoons and can be optimized for specific conditions. In addition, they weigh less and are yet more durable and resilient than the concrete poles they replace.

About DONG-IL Corporation

Since its inception in 1980, DONG-IL CNE has become the only professional company in the country to offer a complete one-stop service for environmental pollution prevention and manufacturing. Based on the accumulated technology in the air pollution prevention facilities, ECS system and PFCs system and the various kinds of gas purification equipment, including the semiconductor, display, scrubber and gas plant, and are currently supplied to major global companies such as semiconductors, displays, and chemicals. In addition, high-performance composite materials, such as those with the sole purpose of securing composite and winding composite materials, are widely used throughout the entire industries, including automobiles, ships, construction, civil engineering, construction, and chemical industries. In particular, the GRP pipe in DONG-IL CNE is recognized for its certification of FM 1614 (Fiber Reinforced Composite(FRC) Pipe and Fittings for Underground Fire Protection Service), and its excellence in piping markets, such as plant and desalination plants and chemical plants and chemical plants. Based on the accumulated technology and know-how, DONG-IL CNE aims to advance into the global market and become the world's leading global player.

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The approximately 114,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into five segments: Chemicals,



Performance Products, Functional Materials & Solutions, Agricultural Solutions and Oil & Gas. BASF generated sales of about €58 billion in 2016. BASF shares are traded on the stock exchanges in Frankfurt (BAS), London (BFA) and Zurich (BAS). Further information at www.basf.com.

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