

News Release

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BASF and Harvest to co-develop more efficient polyurethane insulation solutions for cryogenic and shipbuilding industries

- **BASF will exclusively supply raw materials for Harvest's carriers and gas storage tank insulation projects in China**
- **Both companies will explore research and development programs, co-branding and market promotion opportunities**

Shanghai, China – May 29, 2019 – BASF and Shanghai Harvest Insulation Engineering Co., Ltd (Harvest), have signed a strategic collaboration agreement to develop polyurethane (PU) insulation solutions for the cryogenic and shipbuilding industries in China.

“Demand for cryogenic insulation solutions is surging due to China’s continuous efforts to diversify its energy mix from coal to other resources, such as natural gas,” said Mr. Larsen Kolberg, Head of Business Management, Construction Industry, Performance Materials Asia Pacific, BASF. “Harvest has been our partner since 2012. We are delighted to work with Harvest to diversify its portfolio from cargo storage tanks to liquefied gas carriers.”

According to the agreement, BASF in China will exclusively supply its polyurethane insulation solutions to Harvest, including PU spray foam, polyurea coating systems, adhesive and PU cryogenic block foam systems, for insulating its liquefied petroleum gas (LPG), liquified natural gas (LNG), liquefied ethane gas (LEG) carriers, and gas storage tanks.

Harvest, China's leading cryogenic storage and pipe insulation company, will undertake responsibility for engineering and design, in addition to product and business development. The two companies will jointly explore research and development programs, co-branding and market promotion opportunities.

"BASF's high-performance insulation solution, Elastopor®, will be used in the transportation of liquefied gases at extremely low temperatures, ranging from minus 60°C to minus 163°C, with minimum energy consumption. Polyurea system Elastocoat® will also be applied on the surfaces of our carrier ships, to ensure lasting protection for the surfaces," said Mr. Cheng Zhen Feng, Chairman of Harvest.

Other solutions applied in the insulation panels of cryogenic liquid tanks for various types of LNG carriers include polyurea systems, adhesive Elastopor, and Elastotan®. These solutions will provide high insulation performance, stability and long-lasting service for shipowners.

About BASF's Performance Materials division

BASF's Performance Materials division encompasses the entire materials know-how of BASF regarding innovative, customized plastics under one roof. Globally active in four major industry sectors – transportation, construction, industrial applications and consumer goods – the division has a strong portfolio of products and services combined with a deep understanding of application-oriented system solutions. Key drivers of profitability and growth are our close collaboration with customers and a clear focus on solutions. Strong capabilities in R&D provide the basis to develop innovative products and applications. In 2018, the Performance Materials division achieved global sales of €7.65 billion. More information online: www.plastics.basf.com

About BASF in Greater China

BASF has been a committed partner to Greater China since 1885. With larger production sites in Shanghai, Nanjing and Chongqing, BASF is a major foreign investor in the country's chemical industry, and operates the Innovation Campus Shanghai, a global and regional research and development hub. BASF posted sales of over €7.3 billion in 2018 to customers in Greater China, and employed 9,317 people as of the end of that year. For further information, please visit www.basf.com/cn/en

About BASF

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generated sales of around €63 billion in 2018. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the U.S. Further information at www.basf.com.