Korean coastal community fights erosion with BASF solution

- Revetments with Elastocoast in Korea have weathered 12 typhoons since first installation in 2011
- New Elastocoast® installation now covers shoreline of Goseong, Gyeong-nam Province, in South Korea
- Revetments made with Elastocoast are porous and absorb wave energy more effectively

Seoul, South Korea – November 19, 2015 – Revetments made with BASF’s innovative solution for coastal protection, Elastocoast®, now cover the shoreline of Goseong, Gyeong-nam Province, in South Korea. The solution helps manage sediment and provides protection against coastal erosion during typhoon season.

Instead of paving the coastline with concrete or tar, the Elastocoast polyurethane binder bonds rocks and aggregate into a stable yet porous structure that absorbs wave energy. This prevents damage to the revetments and reduces wave run-up.

“Our first application of Elastocoast was in 2004, over the shoreline of Hamburger Hallig in Germany. Since then, we have continued to demonstrate the high mechanical strength and long-lasting stability of Elastocoast in various projects globally,” said Andy Postlethwaite, Senior Vice President Performance Materials Asia Pacific, BASF. “In Asia, revetments made with Elastocoast will be beneficial to protecting the coastal infrastructure across countries such as Korea, China, Japan and ASEAN, which are affected by heavy storms and typhoons each year.”
Elastocoast is a proven solution for coastal protection in Korea

In South Korea, Elastocoast has already been used along the shorelines of the Jeonnam area. Korea’s first revetment built with Elastocoast, installed in 2011, has remained intact even after weathering 12 typhoons.

The Goseong project at Goseong, Gyeong-nam Province is the seventh joint project by BASF and SBB using Elastocoast. As a manufacturer of concrete blocks for river and coast protection, SBB is working with BASF since 2010 using Elastocoast as a versatile solution to safeguard shores from strong winds and erosion: The Goseong project was completed just before the beginning of the typhoon season.

“In our search for technical alternatives that also deliver economic and environmental benefits, we chose Elastocoast for its permeability. It is also easy to work with and to install using conventional construction equipment,” said Mr. Lee TaeHyoung, President, SBB.

SBB chose Elastocoast for its high permeability and porosity, but also because it supports the ecological balance and the native biological environment of the coastline. Biological studies by the University of Amsterdam have shown that revetments made with Elastocoast are colonized by the flora and fauna typical of the local region within just a few weeks. The findings demonstrate sustainable repopulation of the surface by maritime organisms and proves that Elastocoast can also be used in sensitive environments like National Parks.

Coastal protection against rising sea levels and undercurrents

According to the International Panel on Climate Change, about 12 million people in 23 coastal cities across China, Japan, and Korea make up 28 percent of the total global population living in low-elevation coastal zones. Such cities are at risk of severe flooding from rising sea levels.

Revetments made with Elastocoast provide coastal protection against the effects of rising sea levels and undercurrents. When extended
below water level, the revetment protects the coast against undercurrents that can lead to an erosion of the shoreline beneath it. Even with rising sea levels, waves are prevented from running up and causing floods as the wave energy is absorbed by Elastocoast.

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 2014, the Performance Materials division achieved global sales of € 6.5 billion.

More information online: www.performance-materials.basf.com

About BASF

At BASF, we create chemistry – and have been doing so for 150 years. Our portfolio ranges from chemicals, plastics, performance products and crop protection products to oil and gas. As the world’s leading chemical company, we combine economic success with environmental protection and social responsibility. Through science and innovation, we enable our customers in nearly every industry to meet the current and future needs of society. Our products and solutions contribute to conserving resources, ensuring nutrition and improving quality of life. We have summed up this contribution in our corporate purpose: We create chemistry for a sustainable future. BASF had sales of over €74 billion in 2014 and around 113,000 employees as of the end of the year. BASF shares are traded on the stock exchanges in Frankfurt (BAS), London (BFA) and Zurich (AN). Further information on BASF is available on the Internet at www.basf.com.