

Cabot Aerogel Selected to Insulate Four North Sea Pipelines

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Cabot achieves technology first with pipe-in-pipe insulation for Electrical Heat Trace application

BOSTON, May 16, 2011 (BUSINESS WIRE) -- Cabot Corporation (NYSE: CBT) has been selected by global engineering company Technip to provide pipe-in-pipe insulation for four subsea pipeline projects in the North Sea.

Technip will use Cabot's aerogel Compression PackTM to insulate a total of 64 km of subsea pipe-in-pipe (PiP) flowlines. The systems will be installed in the Norwegian and United Kingdom sectors of the North Sea.

Technip's clients for these projects include Statoil, BP, Total, and the BG Group. The projects are as follows:

Statoil Smorbukk NE: a 6 km, 10 inch x 15 inch PiP system.

BP Devenick: a 34 km, 10 inch x 16 inch and a 3 km 8 inch x 14 inch PiP system.

Total Islay Field Development: an Electrical Heat Trace PiP (EHT-PiP) system.

BG Gaupe (formerly known as Pi): a 14.5 km, 8 inch x 14 inch PiP system.

"These project awards further reinforce the aerogel Compression Pack as the product of choice for the insulation of subsea pipe-in-pipe systems," said A.J. du Plessis, commercial director, Cabot Aerogel. "It's a tremendous technical challenge to insulate subsea pipelines. Our customers prefer our solution because the Compression Pack is a fully-integrated, cost-effective system that is easy to install and offers superior insulation performance."

Cabot Aerogel will deliver the Compression Packs to Technip's spoolbases in Orkanger, Norway, and Evanton, Scotland for installation. Once insulated, the flowlines will be installed by Technip's *Apache II* vessel in the reel-lay method, unspooling the long vertical pipes in one continuous length in water depths from 85 m to 380 m.

These four projects continue the subsea pipe-in-pipe collaboration between Cabot and Technip which began with the 2009 award of the BP Galapagos Area Development project in the Gulf of Mexico. The Devenick project is also significant as it is the third BP pipeline to be insulated with Cabot's aerogel Compression Packs, joining Block 31NE offshore Angola, and the Galapagos project.

Innovation First - Electrical Heat Trace Pipe-in-Pipe Application

Cabot's collaboration with Technip on the Islay project represents a first in subsea pipe-in-pipe systems. It's the first time an EHT-PiP application will incorporate aerogel insulation. The technology takes the form of electrical heat tracing cables that run in physical contact along the length of the pipe between the outer wall of the flowline and the insulation. The unique expanding nature of the Compression Pack allows the aerogel insulation to expand around the heat tracing cables, filling any gaps in a single layer, in contrast with traditional multi-layered insulation systems.

About the Cabot Aerogel Compression PackTM

The Compression Pack consists of compressed aerogel particles with an integrated protective outer layer to provide durability and consistency of form. The packs are applied to sections of flowline. Once in place, the packs are expanded to their precise final forms prior to insertion into the outer casing.

The rugged design of the Compression Pack makes it well-suited for PiP applications, where weld slag, scale, and other factors can pose significant challenges or create delays for systems using less durable products.

The ultra-low conductivity of Cabot's aerogel is a key enabler of the flowline designs, which have specified U-values that can range from 0.50 W/m²-K to 2.00 W/m²-K while maintaining relatively small outer jacket pipes.

Finally, the fully integrated attachment mechanism makes installing the product a quick and easy proposition, eliminating additional consumables such as tape. The one-piece system also incorporates a radiant barrier on its external surface, further improving performance with no additional installation time.

Cabot's Compression Pack assembly facility, located in Billerica, Mass., will manufacture and deliver the product. The 24,000 sq.ft. assembly facility began production of the product in April 2008. Upon completion of these projects, the facility will have delivered more than 300 km of insulation for previous subsea projects.

What is Cabot aerogel?

Sometimes called "frozen smoke", aerogel is the lightest and best insulating solid in the world. Cabot's aerogel is a hydrophobic aerogel produced as particles. Each particle consists largely of air (>95%) contained in a structure with pore sizes less than the mean free path of air molecules, which severely inhibits heat transfer through the material. The particles can be contained in various ways to facilitate incorporation into a wide range of systems including subsea pipeline systems, liquid nitrogen gas (LNG) & cryogenic gas transportation and storage systems, insulative coatings, daylighting panels, sporting equipment, clothing, and others. Cabot produces aerogel in a state-of-the-art manufacturing facility located near Frankfurt,

Germany where it began commercial production in 2003. For more information, visit: www.cabotaerogel.com.

About Cabot Corporation

Cabot Aerogel is a business of Cabot Corporation. Cabot Corporation is a global specialty chemicals and performance materials company headquartered in Boston, Massachusetts, USA. Cabot's major products include carbon black, fumed silica, inkjet colorants, capacitor materials, aerogel, and cesium formate drilling fluids. The website address is: www.cabot-corp.com.

About Technip

Technip is a world leader in the fields of project management, engineering and construction for the oil & gas industry, offering a comprehensive portfolio of innovative solutions and technologies. With 23,000 employees around the world, integrated capabilities and proven expertise in underwater infrastructures (Subsea), offshore facilities (Offshore) and large processing units and plants on land (Onshore), Technip is a key contributor to the development of sustainable solutions for the energy challenges of the 21st century. Present in 48 countries, Technip has operating centers and industrial assets (manufacturing plants, spoolbases, construction yard) on five continents, and operates its own fleet of specialized vessels for pipeline installation and subsea construction. Visit Technip at www.technip.com.

SOURCE: Cabot Corporation

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