

## Nanogel Aerogel Insulation Selected for 49 km of Subsea Pipelines

March 23, 2010

Project will be the second offshore Angola pipeline project delivered by Cabot Aerogel

(Boston, MA and Houston, TX) March 23, 2010 – Cabot Corporation's Aerogel business today announced that its patented and patent-pending Nanogel® aerogel Compression Pack<sup>™</sup> product has been selected by Saipem s.a, to insulate 49-km of subsea flowlines for a deepwater Angola, West Africa project.

The project will be the second to be delivered to Angola from Cabot's Compression Pack assembly facility, located in Billerica, MA. The 16,000-sq ft facility began production in April 2008 and with this project will have delivered over 175-km of insulation for previous projects, including the Block 31 NE - PSVM project which is also located offshore Angola.

The project includes the development of assets as subsea tiebacks to FPSOs via a looped production flowline system which will connect the two hosts. The 10.75 x 16.75-inch pipe-in-pipe flowlines will be insulated using Cabot's Nanogel aerogel Compression Pack product. The packs consist of compressed Nanogel granules with an integrated protective outer layer to provide durability and consistency of form. These packs are applied to sections of inner pipe and then expanded to their precise final forms prior to insertion of the insulated inner pipes into outer pipes.

"Cabot is delighted to be supporting Saipem on this project. It is gratifying to see the market recognize the superior qualities of the Compression Pack product, given the clear time and cost benefits of the quick and easy installation process. We look forward to increasing recognition in the industry as the premier option for pipe-in-pipe insulation systems" said Aled Rees, Commercial Director of Cabot Aerogel.

The ultra-low conductivity of Nanogel 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. Additionally, the rugged design of the Nanogel Compression Pack makes it well-suited for pipe-in-pipe applications where weld slag, scale, and other factors can pose significant challenges or create delays for systems using less durable products. Finally, the integrated attachment mechanism makes installing the product to precise tolerances an easy and efficient task without any need for specialized training.

## What is Nanogel® aerogel?

Sometimes called "frozen smoke", aerogel is the lightest and best insulating solid in the world. Nanogel, Cabot's branded aerogel, is a hydrophobic aerogel produced as particles. Each particle consists largely of air (~90%) contained in a nanostructure with pore sizes less than the mean free path of air molecules, which severely inhibits heat transfer through the material. Nanogel particles can be contained in various ways to facilitate incorporation into a wide range of systems including pipe-in-pipe systems, LNG & cryogenic gas transportation and storage systems, insulative coatings, daylighting panels, sporting equipment, clothing, and others. Cabot produces Nanogel in a state-of-the-art manufacturing facility located near Frankfurt, Germany where it began commercial production in 2003. For more information, visit: <a href="https://www.nanogel.com">www.nanogel.com</a>.

## **About Cabot Corporation**

Cabot Aerogel is a business of Cabot Corporation. Cabot Corporation is a global 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: <u>www.cabot-corp.com</u>.

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