

Scotch® High Strength Filament Tape 890HD Takes Off-Shore Drilling Deeper

New reinforced tape from 3M ensures pipeline integrity and enhances productivity in extreme deep sea environments

OTC, Booth #5601 and #5605 – Addressing the challenges posed by the harsh environments and extreme pressures of deep water drilling, 3M introduces Scotch® High Strength Filament Tape 890HD. With up to three times more tensile strength than any other pressure sensitive filament tape on the market, the new Scotch® High Strength Filament Tape 890HD protects the structural integrity of flexible pipe required in subsea tiebacks.

For more than 30 years, 3M has been providing Scotch® High Strength Filament Reinforced Tapes to the oil and gas industry. As an extension to the existing product portfolio, the new tape provides tensile strength without sacrificing the flexibility necessary in deepwater applications. The reinforced tape is used to contain the steel bands or wires used for armoring flexible flowlines, risers and umbilicals during manufacturing. This critical process step prevents the catastrophic failure condition known as “birdcaging,” in which the helically-wound armoring materials expand outward. An extremely costly problem, birdcaging requires the production line to be shut down while the affected area is cut out.

“As market demand forces oil and gas exploration and drilling further offshore, the deeper and more hostile conditions offer greater operational challenges,” said Chad Henke, global business manager for 3M Industrial Adhesives and Tapes Division. “Not only does the depth place extreme pressure and high tensile stress on the flexible pipeline, but prolonged operational shut downs also put throughput at risk. 890HD is a significant step in product innovation that addresses operational needs above and below the water surface.”

The cut and abrasion resistant polyester-based filament tape provides the strength and stretch needed to maintain the service life of the flexible pipeline. Ideally suited for use in dynamic subsea applications, the new High Strength Filament Tape 890HD incorporates higher denier glass yarn, which dramatically increases the tensile strength to 1200 lbs/in (21012 N/100mm), two times the tensile strength of 3M’s current strongest product, Scotch® High Strength Filament Tape 890.

Above water, the tensile strength inherent in High Strength Filament Tape 890HD means that less tape is required to provide the same tolerance levels as other competitive tapes — dramatically reducing the number of wraps and time required for manufacturing. Unlike woven scrim-type reinforcing materials, the entire Scotch® High Strength Filament Reinforced Tapes product portfolio incorporates a pressure sensitive adhesive, which stays firmly in place immediately upon contact.

Further reducing manufacturing time, all Scotch® High Strength Filament Reinforced Tapes can be customized by width and length to meet roll diameter and wrap pattern requirements. With fewer splices and longer roll lengths, changeover is reduced along with potential delays due to splice failure and delamination.

“3M is focused on developing innovative new products, like Scotch® 890HD, and on partnering with key customers in every major oil and gas region to deliver solutions that make them more competitive,” said Henke.

3M intends to continue innovating and expanding the product portfolio of tape solutions to address the subsea production challenges of tomorrow. For more information regarding 3M solutions for the oil and gas industry, visit http://solutions.3m.com/wps/portal/3M/en_US/Oil-Gas/Home/

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