



Press information



BP SWITCHES TO PEEK™ POLYMER BUSHINGS AND SIGNIFICANTLY REDUCES DOWNTIME

West Conshohocken, PA --When BP discovered that the PTFE-bronze bushings on two of its reactor pumps were wearing out in six months, they turned to plastics specialist EGC Plastics to solve the problem. Working with the pump manufacturers, EGC Plastics recommended replacing the bushings with ones made with VICTREX PEEK™ polymer, a non-brittle carbon fiber reinforced composite which EGC Plastics markets under the tradename Xytrex. The result has been a major reduction in downtime at BP's hydrocarbon processing plant in Grangemouth, England.

According to BP mechanical engineer David Dickson, "Once we were sure that there was no risk of the composite contaminating our sensitive polyethylene production process, we installed the PEEK™ polymer bushing on one of the pumps. It has been running now for over 12 months."

After six months, BP engineers opened up the pump to check the bushing. "There was not even a scratch," says Dickson. "Once we were satisfied that this bushing could solve our problem, we decided to install a similar bushing on the second pump. It has been running now for over seven months."



Bushings made with PEEK™ polymer are non-galling and non-seizing in contact with metal and can operate at a continuous temperature of up to 350°F (177°C). "PEEK™ polymer is a naturally good low friction and wear resistance material," explains Chris Karas, General Manager for Victrex USA, manufacturer of PEEK™ polymer. "Its self-lubricating properties combined with high temperature capability make it an ideal choice for replacing metal wear components in pumps. And, because it expands less than stainless steel at high temperatures, sealing rings can be machined to closer clearances, increasing pump efficiency through reduced recirculation."

Because PEEK™ polymer is a hard material — harder than the PTFE-bronze used on the original BP bushings — it can extend the wear life of components. "For example," says Karas. "A shaft running on a bushing causes high pressure which can actually wear away the bushing. If you use a hard material such as PEEK™ polymer that can resist that pressure, the bushing won't wear out as fast. This is especially important in the hydrocarbon processing industry where reducing the downtime is critical."

VICTREX USA Inc., a division of Victrex plc., is the sole manufacturer and supplier of PEEK™ polymer worldwide. For more information on the properties and performance advantages of VICTREX® PEEK™ polymer, please call (800) VICTREX or visit the Victrex website at www.victrex.com.

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About Victrex

Victrex plc is the leading manufacturer of high performance materials, including VICTREX® PEEK™ polymer, VICOTE® Coatings and APTIV™ film. These materials are used in a variety of markets and offer an exceptional combination of properties to help processors and end users reach new levels of cost savings, quality, and performance.

The company is headquartered in the UK. Invibio®, Victrex's biomaterials business, provides access to specialized products and services for medical device manufacturers. Victrex Japan, Inc. is a wholly-owned subsidiary of Victrex plc. For more information visit <http://www.victrex.com> or www.victrex.mobi.

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