



INTRODUCING VICTREX CT™ POLYMERS

Improve your sealing vs. PCTFE in cryogenic conditions

Liquefied Natural Gas (LNG) provides a range of low temperature engineering challenges to the energy industry. To address these challenges and offer an alternative sealing material solution, Victrex has developed a family of PAEK (Polyaryletherketone) polymers known as VICTREX CT polymers which:

- ▶ Extend the temperature range of cryogenic valves
- ▶ Increase sealing reliability through improved mechanical and thermal properties
- ▶ Deliver potential cost savings

Compared to PCTFE, VICTREX CT polymers offer:



Higher tensile strength coupled with lower modulus confirms more ductility across a wider range of temperatures; testing at -196°C to $+150^{\circ}\text{C}$ indicates better sealing capabilities which could also extend to higher temperatures in the range of $+200^{\circ}\text{C}$.



Lower and constant coefficient of thermal expansion ensures more dimensional stability and minimizes the shrinkage at low temperatures.



Higher thermal conductivity permits a faster reaction to temperature changes allowing the seat seal to keep interference with the steel counter-surface at all time – contributing to more consistent sealing.

VICTREX CT™100 offers outstanding ductility at -196°C , higher tensile elongation and slightly lower compressive modulus.

VICTREX CT™200 offers a lower static and dynamic coefficient of friction which helps minimizing torque and wear allowing smaller actuators and saving space and weight.

Given our decades of experience in delivering innovative PEEK polymer solutions for the Energy industry, Victrex understands the need for reliability and efficiency in harsh conditions. Victrex sealing material solutions are designed and tested for proven performance in cryogenic environments offering more consistent and reliable sealing across a broad temperature range compared to fluoropolymers.

Find out how VICTREX CT polymers can improve reliability in cryogenic sealing components, visit victrex.com/energy

We collaborate with customers
from concept to commercialisation
to improve performance, reliability
and operational efficiency

#1
PEEK
Expert

40+
years

proven performance
in extreme
environments



World Headquarters

Victrex plc
Hillhouse International
Thornton Cleveleys, Lancashire
FY5 4QD, United Kingdom
Tel: +44 (0)1253 897700
Fax: +44 (0)1253 897701
Email: victrexplc@victrex.com

Although the information contained in this document has been created with the greatest care, it is provided "as is" and without any commitment, guarantee, warranty (implied or express) or liability to recipients and/or users. It is not intended to amount to advice. ALL WARRANTIES OF ANY KIND ARE DISCLAIMED AND VICTREX SHALL NOT BE LIABLE FOR THE USE OR RELIANCE BY THE RECIPIENTS AND USERS OF THE INFORMATION CONTAINED IN THIS DOCUMENT. It is the responsibility of recipients and all users to check the accuracy, completeness, reliability, usability and timeliness of the information contained in this document and conduct their own testing of products to determine performance, suitability, efficacy and safety for the specific application/intended use and compliance with applicable laws, regulations and standards. Suggestions of product uses should not be taken as inducements to infringe any particular patent. This document may be modified and/or retracted at any time without notice to the recipient. When using the information contained in this document, users accept that Victrex is not responsible for and assumes no liability for any indirect, incidental or consequential damages that are caused by or in connection with the use of such content.

Victrex plc (or a member of its group) is the owner or the licensee of all intellectual property rights in and to this document. All rights are protected by intellectual property rights including copyright under relevant national and international intellectual property laws and treaties. All rights reserved. Copyright © Victrex plc 2021.



www.victrex.com

Follow us on social media

