## **DuPont<sup>™</sup> Kalrez<sup>®</sup> 0090** Meets NORSOK M-710 Rev. 2 Requirements for Rapid Gas **Decompression**

## Technical Information — Rev. 1, July 2010



DuPont<sup>™</sup> Kalrez<sup>®</sup> 0090 perfluoroelastomer parts, the latest product from DuPont Performance Polymers, have been developed to provide outstanding resistance to rapid gas decompression (RGD), as well as broad chemical resistance, the standard for Kalrez<sup>®</sup> parts. In testing conducted by the Materials Engineering Research Laboratory (MERL), Kalrez® 0090 was given the highest rating of "0000". Kalrez® 0090 perfluoroelastomer parts are the only FFKM parts that have been independently tested and certified by MERL to meet NORSOK M-710 requirements.

## Typical Physical Properties

Color	Black	
Hardness <sup>2</sup> , Durometer Shore A	95	
50% Modulus <sup>3</sup> , MPa (psi)	14.18 (2057)	
Tensile Strength at Break <sup>3</sup> , %	19.49 (2827)	
Elongation at Break <sup>3</sup> , %	80	
Compression Set <sup>4</sup> , 70 hr at 200 °C (392 °F), %	40	
Upper Service Temperature <sup>5</sup> , °C (°F)	250 (482)	
Volume Swell <sup>6</sup> , % change		
Steam, 225 °C (437 °F), 672 hr	<5	
Ethylenediamine, 90 °C (194 °F), 70 hr	<5	

Not to be used for specification purposes



<sup>&</sup>lt;sup>2</sup> ASTM D2240 (pellet test specimens) <sup>3</sup> ASTM D412, (AS568 K214 O-ring test specimens)

ASTM D395B (AS568 K214 O-ring test specimens)

<sup>&</sup>lt;sup>5</sup> DuPont Performance Polymers proprietary test method

<sup>&</sup>lt;sup>6</sup> ASTM D471 (AS568 K214 O-ring test specimens)

## Visit us at kalrez.dupont.com or vespel.dupont.com

Contact DuPont at the following regional locations:

Europe, Middle East, Africa **North America Latin America** 800-222-8377 +0800 17 17 15 +41 22 717 51 11

**Greater China ASEAN** Japan

+86-400-8851-888 +65-6586-3688 +81-3-5521-8484

The information set forth herein is furnished free of charge and is based on technical data that DuPont believes to be reliable and falls within the normal range of properties. It is intended for use by persons having technical skill, at their own discretion and risk. This data should not be used to establish specification limits nor used alone as the basis of design. Handling precaution information is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards. Since conditions of product use and disposal are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. As with any product, evaluation under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate or a recommendation to infringe on patents.

Caution: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, discuss with your DuPont customer service representative and read Medical Caution Statement H-50103-3.

Copyright © 2010 DuPont. The DuPont Oval Logo, DuPont<sup>™</sup>, The miracles of science<sup>™</sup>, Kalrez<sup>®</sup>, and Vespel<sup>®</sup> are trademarks or registered trademarks of E.I. du Pont de Nemours and Company or its affiliates. All rights reserved.

(12/09) Reference No. KZE-A10821-00-B0710

