

DuPont™ Kalrez® Spectrum™ 4001

For High Purity CPI Applications

Technical Information - Rev. 1, July 2019

Product Description

DuPont™ Kalrez® 4001 perfluoroelastomer parts are a non-filled product which is well suited for selected high purity applications in the semiconductor industry and other markets. Kalrez® 4001 has excellent chemical resistance, exhibiting low swell in organic acids, inorganic acids, esters, ketones, and aldehydes. It also offers low hardness and good mechanical properties. While Kalrez® 4001 is a non-filled perfluoroelastomer, the color is black. A maximum service temperature of 275°C (527°F) is suggested.

Typical Physical Properties¹

. 16	
Color	Black
Hardness ² , Shore A	54
100% Modulus ³ , MPa (psi)	1.48 (215)
Tensile Strength at Break ³ , MPa (psi)	7.92 (1149)
Elongation at Break ³ , %	245
Compression Set ⁴ , 70 hr at 204 °C (400 °F), %	16
Maximum Service Temperature ⁵ , °C (°F)	275 (525)

¹ Not to be used for specification purposes

Visit us at kalrez.com

dupont.com



The information set forth herein is furnished free of charge, is based on technical data that DuPont believes to be reliable, and represents typical values that fall within the normal range of properties. This information relates only to the specific material designated and may not be valid for such material used in combination with other materials or in other processes. It is intended for use by persons having technical skill, at their own discretion and risk. This information 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 and comply with applicable law. 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 DuPont materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract that is consistent with the DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative.

DuPont's sole warranty is that our products will meet our standard sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DUPONT SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR NON-INFRINGEMENT. DUPONT DISCLAIMS LIABILITY FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.

DuPont™, the DuPont Oval Logo, and all trademarks and service marks denoted with ™, ™ or ® are owned by affiliates of DuPont de Nemours, Inc. unless otherwise noted.

© 2019 DuPont. All rights reserved

² ASTM D2240 (Pellet test specimens)

³ ASTM D412 (Dumbbell test specimens)

⁴ ASTM D395B (Pellet test specimens)

⁵ DuPont proprietary method; performance will vary with seal design and application specifics