



DuPont™ Kalrez® Spectrum™ 6380

For Strong Amine Applications

Technical Information - Rev. 4, July 2019

Product Description

DuPont™ Kalrez® Spectrum™ 6380 perfluoroelastomers parts are a non-black product specifically developed for chemical processes involving hot, aggressive amines. In addition, it has excellent overall chemical resistance (see chart below). This cream colored product is easily identifiable when selecting an O-ring material for harsh chemical plant services. This material has excellent mechanical properties and is a top choice for both static and dynamic sealing applications. A maximum service temperature of 225 °C is suggested while short-term excursions to higher temperatures are permissible.

For more information on Kalrez® Spectrum™ 6380, or to see if it might be right for your difficult sealing applications in amines and other aggressive chemical streams, please contact DuPont.

Typical Physical Properties¹

Color	Cream
Hardness ² , Shore A	80
100% Modulus ³ , MPa (psi)	6.89 (1000)
Tensile Strength at Break ³ , MPa (psi)	15.86 (2300)
Elongation at Break ³ , %	160
Compression Set ⁴ , 70 hr at 204 °C (400 °F), %	42
Compression Set ⁵ , 70 hr at 204 °C (400 °F), %	44
Maximum Service Temperature ⁶ , °C (°F)	225 (437)
Lowest Service Temperature ⁶ , °C (°F)	-22 (-7.6)

¹ Not to be used for specification purposes

² ASTM D2240 (Pellet test specimens)

³ ASTM D412 (Dumbbell test specimens)

⁴ ASTM D395B (Pellet test specimens)

⁵ ASTM D395B & D1414 (AS568 K214 O-ring test specimens)

⁶ DuPont proprietary method; performance will vary with seal design and application specifics

Chemical Resistance (672 hour exposure)

Material Compound		DuPont™ Kalrez® Spectrum™ 6380
<i>Chemical Resistance to:</i>	<i>Temperature, °C</i>	<i>Rating</i>
Acetic Acid	100	A
Nitric Acid (fuming)	60	A
Diethyl Amine	50	A
Monoethanolamine	150	B
Ethylene Diamine	90	A
Butyraldehyde	70	A
Methanol	100	A
Toluene	100	A
Water	225	A

Rating: **A:** < 10% volume change and minimal effect on elastomer properties
B: 10–20% volume increase and slight effect on elastomer properties
C: > 20% volume increase and significant effect on elastomer properties

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.

(11/06) Reference No. KZE-A10553-00-D0719