# DuPont™ Kalrez® 2037

## For Semiconductor Applications

Technical Information—Rev. 4, July 2010

### Product Description

DuPont™ Kalrez® 2037 perfluoroelastomer parts are a white product that is suitable for use in some plasma and gas deposition applications. It exhibits very low weight loss in oxygen and fluorine-based plasmas and has good mechanical strength properties. A maximum service temperature of 220 °C is suggested. Ultrapure post-cleaning and packaging is optional.

### Performance Features/Benefits

- Very low weight loss in oxygen and fluorine-based plasmas
- Good mechanical strength properties
- Good compression set properties
- Good resistance to dry process chemistry

| Typical Physical Properties[1] | |
|---|---|
| Hardness[2], Shore A | 79 |
| 100% Modulus[3], MPa | 6.20 |
| Tensile Strength at Break[3], MPa | 16.88 |
| Elongation at Break[3], % | 200 |
| Compression Set[4], %<br>70 hr at 204 °C, % | 27 |
| Maximum Continuous Service Temperature[5], °C | 220 |

[1] Not to be used for specification purposes
[2] ASTM D2240 (pellet test specimens)
[3] ASTM D412 (dumbbell test specimen)
[4] ASTM 395B (pellet test specimens)
[5] DuPont proprietary test method

### Kalrez® 2037 Compatibility Ratings In Various Plasma Environments

| Plasma Environment | Chemical Formula | Compatibility Rating |
|---|---|---|
| Argon | Ar | Excellent |
| Boron Trichloride | $BCl_3$ | Good |
| Boron Trifluoride | $BF_3$ | Excellent |
| Chlorine | $Cl_2$ | Excellent |
| Hexafluoroethane (F-116) | $C_2F_6$ | Good |
| Hydrogen Bromide | HBr | Excellent |
| Nitrogen Trifluoride | $NF_3$ | Good |
| Oxygen | $O_2$ | Fair |
| Silicon Tetrafluoride | $SiF_4$ | Good |
| Sulfur Hexafluoride | $SF_6$ | Good |
| Tetrafluoromethane (F-14) | $CF_4$ | Good |

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

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(06/05) Reference No. KZE-A10062-00-D0710


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