



INNOVATION

SOLUTIONS

SUPPORT

## Solutions for the PV Market

Bay Seal Company is your local source for all of your PV needs. We are stocking distributors for Parker Seal® and Dupont Kalrez® and offer a full line of Metric and Teflon o-rings and Quad Rings. We also manufacture custom molded and extruded shapes for all available elastomeric materials.

Having served the Bay Area and Northern California since 1957, Bay Seal Company has the experience and expertise to provide highly engineered solutions to help you develop the most cost effective seal design for your project .



### O-rings, Hollow Silicone Spliced O-Rings, and Custom Parts in:

- Fluorocarbon
- EPDM/BUNA
- Silicone
- Fluorosilicone
- Butyl and other components



Vespel®



Kalrez® perfluoroelastomer parts  
From DuPont Performance Elastomers

### Dupont Performance Polymers:

- Kalrez® PV8030
- Kalrez® PV8050
- Kalrez® PV8070
- Kalrez® 9100
- Vespel®
- Zalak® 5300



### Custom Molded Products

#### Seals and Rubber Parts:

- Fluorocarbon
- Silicone
- Neoprene
- Fluorosilicone
- EPDM/BUNA
- Hypalon and other materials



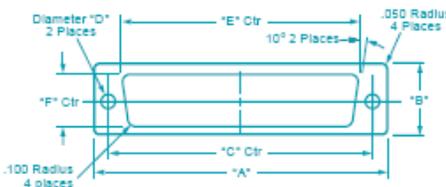
#### Spliced O-Rings:

- Manufactured in-house
- Variety of cross sections
- Large, non-standard sizes in all standard materials.



#### Gaskets:

Our experienced sales engineers can help you with any design dilemma.



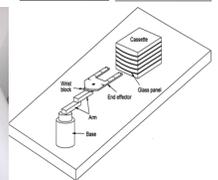
### Large Substrate Handling

#### Iguchi Clean Room Ball Transfers:



#### Vespel® CR End Effectors:

- Unique pitch based carbon fiber arms
- Various shapes for any type of transfer robots.



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# Press Release

Press Release Date: 6/24/2010

## DuPont Performance Polymers Introduces Zalak® 5300 Seals for Cost-Effective Sealing in Photovoltaic Crystalline Silicon and Thin Film Manufacturing



DuPont Performance Polymers (DuPont) will introduce DuPont™ Zalak® 5300 high-performance seals for photovoltaic cell manufacturing at Intersolar Booth 8159 in San Francisco, July 13-15. Zalak® 5300 seals bridge the performance gap between standard fluoroelastomers (FKM) and perfluoroelastomers (FFKM) seals. Zalak® 5300 seals are specially formulated for use in plasma environments, such as edge isolation, ARC coating in crystalline cell manufacturing, TCO sputtering deposition, and selective a-Si PECVD applications in PV cell manufacturing.

As PV manufacturers use more aggressive and efficient chemicals, such as nitrogen trifluoride (NF3), and oxygen (O2) plasma to increase uptime and improve output, more strain is placed on the manufacturing process. Materials traditionally used in PV manufacturing, like silicone, fluorosilicone, and standard fluoroelastomers can degrade quickly in harsh conditions causing unplanned maintenance due to incompatible sealing materials. "The last thing that cell manufacturers want is a shutdown due to premature seal failure," says Dave Lipnicke, global marketing manager – DuPont. "Our tests indicate that Zalak® 5300 is less

likely to erode in aggressive plasmas than standard fluoroelastomers or silicones. For even better plasma resistance, our flagship product, Kalrez® 9100, is still the industry standard." (See Figure 1)

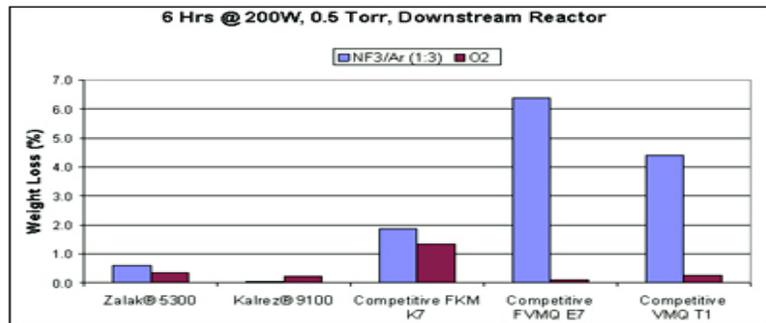


Figure 1: Effect of Plasma Attack on Different Elastomeric Materials

Zalak® seals join the Kalrez® perfluoroelastomer product line as a cost-effective alternative in select applications where traditional sealing materials are insufficient.

In addition to its excellent plasma resistance, Zalak® 5300 seals offer:

- good resistance to "dry" process chemistry,
- excellent compression set properties,
- low stiction (sticking), and
- very low particle generation.

For static and low-sealing force applications, like chamber lid seals and gas inlet seals, Zalak® 5300 seals are an excellent upgrade from standard sealing materials. Contact DuPont for the availability of sealing shapes or sizes.

DuPont™ Zalak® and Kalrez® are part of a broad and growing portfolio of products represented by DuPont Photovoltaic Solutions, which connects science and technology from across the company on a global scale to help support the dramatic growth in the photovoltaic industry. To learn more, please visit <http://photovoltaics.dupont.com>.

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