

Clean Sealing Material for Semiconductor, Solar, and Bio Tech Applications

- **Shield** is a specially designed material for clean applications in semiconductor and solar.
- **Shield** is a special see through elastomer that does not have impurities normally found in commercial grade materials.
- **Shield** is an unique compound formulation, resists particle generation for higher yields and reduced tool maintenance.
- **Shield** has seals in a wide range of operating temperatures. Dynamic seals may be held as low as -18° and can withstand temperatures up to 180°C.
- The material is ultra stretchable up to 262% combined with very high tensile strength.
- The broad chemical resistance allows **Shield** to be used in a range of plasma chemistries including O₂ and NF₃.

SPECIAL FEATURES

- Ultra Clean, No Metals
- Very Low Out-gassing
- Medium Operating Temperature
- Broad Chemical Resistance
- Designed for Dry Semiconductor, Solar Applications
- Very Good Mechanical Properties and Durability in Dynamic Seals/Bellows
- Low Particle Generation

Applications

Orings	Dry Etch Processes
Custom Seals	Ashing Processes
Bonded Gates	All CVD Processes
Bellows	PVD Processes

Shield: Typical Physical Properties

Compression Set, Size -214 O-ring, 70 hour @ 204°C	22.3 %
Tensile at Break	23.2 MPa, 3358 psi
Elongation	262 %
100% Modulus	3.8 MPa, 554 psi
Durometer, Shore A	70
Color	See-through
Minimum Operation Temperature	-18 °C
Maximum Temperature	+180 °C
Special Features	Ultra Clean