

Bonded Gates and Custom Designs

In addition to a full series of standard O-rings, ASNA also specializes in manufacturing all kinds of custom designed products for very demanding applications. Our highly experienced R&D team is available to work with your engineering group to develop new products for your strict specifications and requirements.

Moldings to Your Requirements

Sealing elements made with PERFREZ® compounds are available for the following application categories:

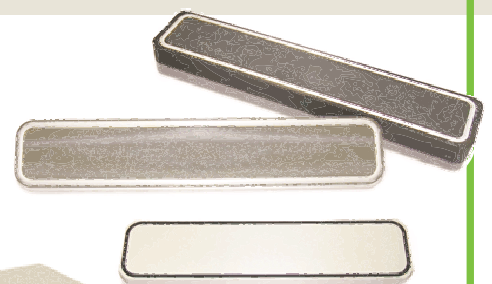
Static:

- Electrode seals
- Lamp seals
- Exhaust valves
- Gas inlets / outlets
- Window seals
- Center rings



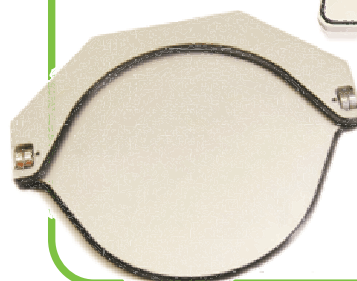
Dynamic:

- Door seals
- Gate valves
- Pendulum valves
- Lip seals
- Chamber lid seals



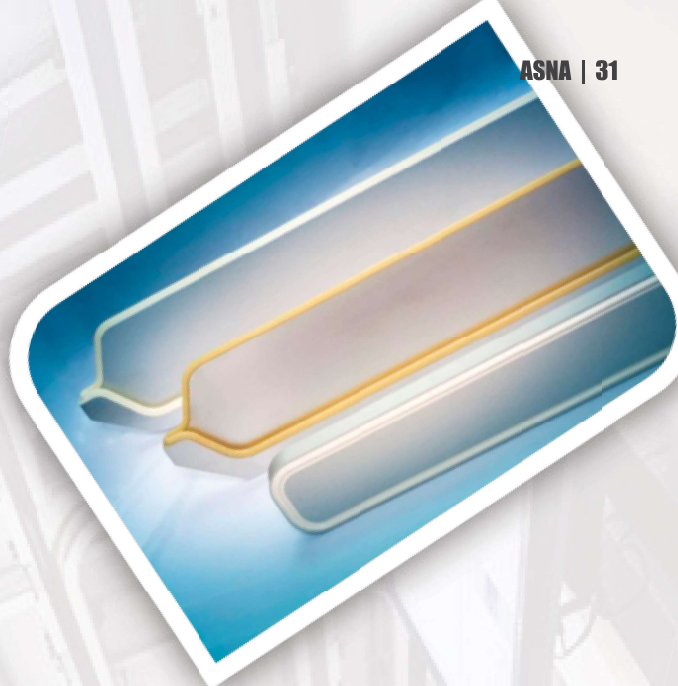
Fittings:

- Carrier
- Wafer / FPD
- Support
- Transport
- FOUP









At ASNA, we know that the harsh chemical, gas, and high temperature semiconductor processes are a challenge for seal performance integrity. Our SMART sealing® solutions provide the most advanced sealing compounds in the global market, making them virtually impervious to any process media including plasma, deposition, thermal, and wet applications.



Compound	PERFREZ® 5033	PERFREZ® 6022	PERFREZ® XL12
Physical properties			
Polymer type	FKM	FFKM	FFKM
Color	Beige	Off-white	Off-white
Specific gravity [g/cm³]	1.96	2.21	2.05
Hardness [Shore A] ¹	80	80	78
Mechanical properties			
Tensile Strength [MPa]	15.6	21.8	17.1
Elongation [%]	263	161	200
Modulus at 100% [MPa]	6.5	14.66	6.79
Compression set	25 ²	33 ³	27 ⁴
Thermal			
Service temperature [°C]	-25 to +260	-20 to +280	-20 to +260

¹ Hardness tolerance = ±5 ² 70h at 200°C ³ 72h at 200°C ⁴ 72h at 175°C

Valve description, features and intended application:

Series 021/031	Series 022/032	Series 034	
MONOVAT™ classic	MONOVAT™ direct	C-Insert	S-Insert
			
Transfer valve for load lock / process module isolation	Transfer valve for load lock / process module isolation	Designed for Producer® SE	Designed for Producer® GT retrofittable to Producer® SE
Bellows feed through	Protected bellows feed through	Shaft-sealed with intermediate pumping	Protected bellows feed through
Various gate dimensions	Various gate dimensions	DN 35x336	DN 35x336
Replaced by Series 022/032	Easy gate exchange	Replaced by S-Insert	Low particle count
-	5 million cycles maintenance free actuator	-	5 million cycles maintenance free actuator