

PERFREZ[®] 5033

5033.8-4-2015

Specialty Hybrid

PERFREZ[®]5033 solves the problem where an FKM (known as Viton[®] in all their many mixes and grades) cannot handle the process chemistries but a FFKM (perfluoroelastomer) is an 'overkill' solution.

In Advanced Technologies where killer defects are becoming a substantial issue, FKM's can produce particles that are caused from the use of industrial grade materials that are not clean room quality. This 'Specialty Hybrid' offers the answer to production that requires longer sealing life, longer PM cycles, and the confidence such materials can offer without the harsh cost implications.

Even more, our specialty material is compounded in such a way that produces the best capabilities of this material and offers the highest chemical resistance possible. Nano-composition and improvements in manufacturing as well as clean-room steps make this the most ultimate, highest-grade of its class along with the strong physical properties that often hinder the success of FFKM's.



Semiconductor Applications & more: 200 mm / 300mm and more

- Deposition: CVD, APCVD,
- HDPCVD, RPCVD, SACVD
- Poly Etch
- Metal Etch
- Ion Implant
- MEMS
- LCD
- Solar

Typical Physical Properties

Color	Light beige	
PROPERTIES	ASTM	VALUE
Hardness, (Shore A)	D2240	80 +/-5
Tensile Strength psi, (MPa), min	D1414	2248 (15.6)
Elongation, %, min	D1414	263
Modulus at 100%, (MPa), min	D1414	935.5 (6.5)
Compression Set, 70 Hrs@200°C (392°F)	D395, Method B	25
Service Temperature °C		-25C to 230C

***EVEN THOUGH ELONGATION PROPERTY IS INDICATED, MOST PERFLUROELASTOMER MATERIALS SHOULD NOT BE STRETCHED FOR OPTIMAL PERFORMANCE.*

Note: color variations may be observed in parts. Variations are considered to be cosmetic and inherent as a result of curing process, not indicative for foreign matter and are not expected to have an adverse effect on the performance of the part in service.

Features and Benefits

- Best in class of materials:
- nano-composition /special TFE filler
- Superior physical properties
- Higher temperature capabilities
- Better oxygen and fluorine compatibility
- Low particulation
- Low out-gassing

Sealing Applications:

- Bell Jar Seals
- Chamber Lid Seals
- Door Seals
- End Point Windows
- Gas Inlet Seals
- Isolator Valve Seals
- KF-Fittings
- Slit Valves
- Window Seals

PERFREZ[®] 5033 Elemental Analysis:

Leachable 34 Elements by ICP-MS in Piranha

Element	Units: ppb (ng/g)	Element	Units: ppb (ng/g)
Aluminum (Al)	3	Magnesium (Mg)	0.8
Antimony (Sb)	*	Manganese (Mn)	0.1
Arsenic (As)	8	Molybdenum (Mo)	*
Barium (Ba)	0.3	Nickel (Ni)	0.3
Beryllium (Be)	*	Niobium (Nb)	*
Bismuth (Bi)	*	Potassium (K)	*
Boron (B)	*	Rubidium (Rb)	*
Cadmium (Cd)	*	Sliver (Ag)	8
Calcium (Ca)	13	Sodium (Na)	0.5
Chromium (Cr)	*	Strontium (Sr)	*
Cobalt (Co)	*	Tantalum (Ta)	*
Gallium (Ga)	6.4	Thallium (Tl)	*
Germanium (Ge)	*	Tin (Sn)	*
Gold (Au)	*	Titanium (Ti)	*
Iron (Fe)	2.9	Vanadium (V)	*
Lead (Pb)	0.2	Zinc (Zn)	15
Lithium (Li)	*	Zirconium (Zr)	*



Applied Seals North America, Inc.

39899 Balentine Dr. Suite 368, Newark, CA94560, U.S.A

Toll Free: 1 (888) 551 ASNA (2762)

Direct: 1 (510) 623 8307

Fax: 1 (510) 623 8723

Email: asna.info@appliedsealsglobal.com

Press Inquires: asna.media@appliedsealsglobal.com

<http://www.appliedsealsflobal.com>