

SEGI-RITE PARINGS



SEAT-RITE PA RINGS



OFFERED IN ALL STANDARD SIZE
CUSTOM SIZES AVAILABLE UPON REQUEST





SUPER ORANGE Pressure Actuated plunger rings are an excellent option for any application, from high sand thermal, corrosive environments and fast, stroking high volume sour production. This new material will provide producers a product they can rely on in every application.

SPECIFICATIONS

TEMPERATURE RATING

-238°F (-250°C) Cryogenic - +500°F +260°C

ABRASION RESISTANCE

MODERATE - HIGH

ELONGATION (BREAK STRENGTH)
230%

CHEMICAL COMPATIBILITY
INERT







NEXT PAGE **EXT PA RINGS**





EXT Pressure Actuated plunger rings are a industry driven improvement from traditional Nylon or fabric alternatives. Constructed from high performance polymers, providing a stronger material over the life span of application exposure. EXT rings are suitable in high water cuts, heavy abrasive or any application where innovation is needed.

SPECIFICATIONS

TEMPERATURE RATING 392° F (200°C)

ABRASION RESISTANCE HIGH - EXTREME

ELONGATION (BREAK STRENGTH) 250%

CHEMICAL COMPATIBILITY
INERT







NEXT PAGE
THT PA RINGS





The High temperature low friction (THT) pressure ring is designed specifically for steam production, CPP's proprietary material is a proven high temperature material well suited for sucker rod pumps pumping fast stroking in SAGD, Cyclic and Thermal Flood operations. The THT material will work well in high concentrations of sand and ultra fines commonly produced in heavy oil production. The self cleaning nature of the PA ring material makes for a long lasting pump with limited to no wear on pump components at all stroke speeds. Thermal – High Temp rings are chemically inert handing all concentration of Hydrocarbons, look towards the THT when chemical batching is potent and causing ring failure. Customers will find it easy to install the THT rings making plunger assemble and disassembly quick and easy.

SPECIFICATIONS

TEMPERATURE RATING 446°F (230°C) - 662°F (350°C)

ABRASION RESISTANCE MODERATE - HIGH

ELONGATION (BREAK STRENGTH) 230%

CHEMICAL COMPATIBILITY
INERT







NEXT PAGE **SUPERMAG PA RINGS**





SuperMAG fabric hybrid pressure actuated rings give operators a long lasting extreme service rag style ring. The material design takes into consideration moderate to high down hole temperatures while not sacrificing chemical resistance. The molded construction makes the installation and removal easy, and keeps pump shops efficient and safe. SuperMag PA rings work well in high concentrations of sour gas, ultra fine abrasives in both light and heavy crude applications. The Elongation provids optimal lift and efficiency of all stroke lengths, little to no swelling will take place while pumping with SuperMAG rings.

SPECIFICATIONS

TEMPERATURE RATING 330° F (165°C)

ABRASION RESISTANCE EXTREME

ELONGATION (BREAK STRENGTH)
400% (GREAT)

CHEMICAL COMPATIBILITY 2-13







NEXT PAGE
PEEK PA RINGS





PEEK materials offer our clients unstoppable performance in any application, including extreme temperatures and all PH's. PEEK is known as the best engineered plastic in todays oil & gas industries, providing a chemically inert alternative to any material offered by CPP.

SPECIFICATIONS

TEMPERATURE RATING 536° F (300°C)

ABRASION RESISTANCE HIGH

ELONGATION (BREAK STRENGTH)
50% (LOW)

CHEMICAL COMPATIBILITY
INERT







NEXT PAGE
HT NYLON PA RINGS





High Temp Spec of the aforementioned Nylon PA rings, this product provide a self lubricated long lasting product, ideal for slow stroking light crude production. Our Nylon "PA" rings work effectively in sweet environments, with limited abrasive or minimal water cuts.

SPECIFICATIONS

TEMPERATURE RATING 302° F (150°C)

ABRASION RESISTANCE HIGH

ELONGATION (BREAK STRENGTH)
50% (LOW)

CHEMICAL COMPATIBILITY
INERT







NEXT PAGE **POLYKETONE PA RINGS**





PolyKetone provides a long lasting product, ideal for slow stroking light crude production. Our Ketone "PA" rings work effectively in sweet and moderate sour environments, with limited abrasion or minimal water cuts. PolyKetone is a great substitute when temperature ratings of traditional Nylons are insufficient. If the application is not highly abrasive try Poly-Ketone or look to the improved EXT material.

SPECIFICATIONS

TEMPERATURE RATING 320° F (160°C)

ABRASION RESISTANCE MODERATE

ELONGATION (BREAK STRENGTH) 100% (LOW)

CHEMICAL COMPATIBILITY MODERATE - HIGH







NEXT PAGE **NYLON PA RINGS**





Plastic or otherwise known as Nylon PA rings provide a self lubricated long lasting product, ideal for slow stroking light crude production. Our Nylon "PA" rings work effectively in sweet environments, with limited abrasive or minimal water cuts.

SPECIFICATIONS

TEMPERATURE RATING 250° F (120°C)

ABRASION RESISTANCE MODERATE - HIGH

ELONGATION (BREAK STRENGTH)
315%

PH RANGE 2 - 13 PH







NEXT PAGE COMPOSITE PA RINGS





Fabric pressure actuated rings will provide a significant different performance than polymer materials. Our fabric and rubber combination will provide minimal swelling while creating a stronger plunger seal.

SPECIFICATIONS

TEMPERATURE RATING 220° F (105°C)

ABRASION RESISTANCE
MEDIUM

ELONGATION (BREAK STRENGTH) 400% (GREAT)

CHEMICAL COMPATIBILITY
MODERATE







NEXT PAGE **DIMENSIONS**



PA RING DIMENSIONS

PA RINGS	O.D.	I.D.	HEIGHT
DESCRIPTION	СРР	СРР	СРР
SIZE	+/.005"	+.005/000	+/.005"
FABRIC, NYLON, EXT, POLYKETONE, PEEK			
1-1/4"	1.215"	0.850"	0.230"
1-1/2"	1.500"	1.14"	0.230"
1-3/4"	1.710"	1.240"	0.230"
2.00"	1.965"	1.485"	0.230"
2-1/4"	2.200"	1.590"	0.230"
2-1/2"	2.435"	1.835"	0.230"
2-3/4"	2.740"	2.090"	0.230"
3-1/4"	3.20"	2.550"	0.230"

NEXT PAGE
CHEMICAL COMPATIBILITY



CHEMICAL COMPATIBILITY

RATINGS — CHEMICAL EFFECT A — No effect—Excellent B — Minor effect—Good C — Moderate effect—Fair D — Severe effect—Not recommended	Peek	THT	Composite	ЕХТ	Nylon®	SuperMAG	Viton®	Nylon HT	PolyKetone	Super Orange
Acetaldehyde5	Α	Α	D	Α	С	С	D	В	В	Α
Acetic Acid 20%	Α	Α	D	Α	D	D	С	Α	В	Α
Acetone6	Α	Α	D	Α	D	D	D	Α	В	Α
Benzyl	Α	Α	С	Α	Α	С	В	Α	Α	Α
Ethyl	Α	Α	С	Α	Α	С	D	Α	Α	Α
Isopropyl	Α	Α	D	Α	С	D	D	Α	С	Α
Amines	Α	Α	D	Α	Α	D	Α	Α	Α	Α
Ammonia, Anhydrous	Α	Α	D	Α	Α	С	D	Α	В	Α
Ammonium Bifluoride	Α	Α	D	Α	Α	D	В	Α	В	Α
Amyl Alcohol	Α	Α	В	Α	Α	В	В	Α	Α	Α
Asphalt	Α	Α	D	Α	Α	С	Α	Α	Α	Α
Barium Chloride	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α
Benzene ₂	Α	Α	D	Α	Α	Α	Α	Α	В	Α
Boric Acid	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α
Butadiene	Α	Α	D	Α	D	D	Α	Α	Α	Α
Calcium Bisulfate	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α
Calcium Chloride	Α	Α	С	Α	D	В	Α	Α	Α	Α
Carbon Disulfide2	Α	Α	D	Α	Α	D	Α	Α	Α	Α
Diesel Fuel	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α
Ethane	Α	Α	С	Α	Α	D	D	В	В	Α
Ethyl Acetate2	Α	Α	D	Α	Α	D	D	В	В	Α
Ethylene Chloride2	В	В	D	Α	Α	Α	Α	Α	Α	Α
Fluorine	Α	Α	D	Α	D	D	С	Α	Α	Α
Hydraulic Oils (Petroleum)	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α
Hydraulic Oils (Synthetic) ₁	Α	Α	Α	Α	Α	С	Α	Α	Α	Α

FOOTNOTES

- 1. P.V.C. Satisfactory to 72° F.
- Polypropylene Satisfactory to 72° F.
 Polypropylene Satisfactory to 120° F.
- 4. Buna-N Satisfactory for "O" Rings
- 5. Polyacetal Satisfactory to 72° F.
- 6. Ceramag Satisfactory to 72° F.

NEXT PAGE
CHEMICAL COMPATIBILITY

CONTINUED



CHEMICAL COMPATIBILITY (cont.)

RATINGS — CHEMICAL EFFECT A — No effect—Excellent B — Minor effect—Good C — Moderate effect—Fair D — Severe effect—Not recommended	Peek	THT	Composite	ЕХТ	Nylon®	SuperMAG	Viton®	Nylon HT	PolyKetone	Super Orange
Hydrobromic Acid 20%	Α	Α	D	Α	D	D	Α	В	В	Α
Hydrofluosilicic Acid	Α	Α	В	Α	D	В	Α	Α	В	Α
Hydrogen Peroxide	Α	Α	D	Α	D	С	С	Α	В	Α
Ketones	Α	Α	D	Α	В	D	С	Α	В	Α
Lubricants	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α
Methanol	Α	Α	D	Α	Α	Α	D	Α	Α	Α
Methyl Alcohol 10%	Α	Α	В	Α	В	Α	D	Α	Α	Α
Methyl Chloride	В	В	D	Α	С	D	С	В	В	Α
Methylene Chloride	Α	Α	D	Α	Α	D	Α	Α	Α	Α
Nitric Acid (10% Solution)	Α	Α	D	Α	В	D	Α	Α	В	В
Paraffin	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α
Phosphoric Acid (Crude)	Α	Α	С	Α	Α	В	Α	Α	Α	Α
Potash	Α	Α	Α	Α	Α	В	Α	Α	Α	Α
Potassium Carbonate	Α	Α	С	Α	Α	С	В	Α	Α	Α
Potassium Hydroxide (50%)	Α	Α	С	Α	В	С	D	Α	Α	Α
Propylene Glycol	Α	Α	С	Α	В	D	С	Α	Α	Α
Sodium Acetate	Α	Α	В	Α	Α	В	D	Α	Α	Α
Sodium Carbonate	Α	Α	С	Α	Α	С	С	Α	Α	Α
Sodium Hydroxide/Caustic Soda (20%)	Α	Α	С	Α	С	С	Α	Α	Α	В
Sodium Nitrate	Α	Α	С	Α	Α	D	Α	Α	Α	Α
Sodium Peroxide	Α	Α	С	Α	Α	С	Α	Α	Α	Α
Sodium Thiosulphate ("Hypo")	Α	Α	D	Α	Α	D	D	Α	Α	Α
Sulfuric Acid (to 10%)	Α	Α	В	Α	D	D	Α	В	Α	Α
Sulfurous Acid	Α	Α	В	Α	С	С	D	В	В	Α
Toluene	Α	Α	С	Α	С	С	С	В	В	Α
Xylene ₂	Α	Α	С	Α	С	С	С	В	В	Α
Zinc Chloride	Α	Α	D	Α	С	С	С	В	В	Α

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NEXT PAGE IMMERSION TEST RESULTS

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IMMERSION TEST IN SIMULATED SOUR GAS ENVIRONMENT

API 6A ANNEX F IMMERSION TEST

_	80% CO ₂	10% H₂S	10% CH₄
CPP COMPOSITE	PASSED	PASSED	PASSED
CPP EXT	PASSED	PASSED	PASSED
NYLON	FAILED	FAILED	FAILED
PEEK	PASSED	PASSED	PASSED

FOR MORE IMMERSION TESTING RESULTS AND SERVICE PLEASE CONTACT CPP TODAY

SEGIFIE PARINGS