O-Rings
Custom Molded Rubber
Gaskets
Mechanical Seals
Hydraulic Seals
Machined Plastics
Radial Shaft Seals
Rubber-to-Metal Bonded
EngineeredCompounds
Standard Compounds
ENGINEERING ASSISTANCE


OPERATIONS ASSISTANCE

Kitting  Sub-Assembly  Clean Room  Material Traceability  PPAP Approvals  Bin Stocking

PURCHASING ASSISTANCE

Vendor Consolidation  Alternative Materials  Vendor-Managed Inventory  Cost Reduction  Global Sourcing  Shipment Consolidation

CONVERSION

Gasket Conversion
- No Tooling or Set-up Fees
- Foam
- Rubber
- Diaphragm Materials
- Compressed Non-Asbestos
- High Performance Materials
- PSA

Machined Plastics
- PTFE Blends
- Engineered Plastics (PEEK, PPS, PA, TFM, etc.)
- Spring-energized Seals
- Shaft Seals

Splicing / Vulcanizing
- No Tooling or Set-up Fees
- O-Rings
- Large Diameter Seals
- Smallest Splicing Capability 6.5” ID

INDUSTRIES

Aerospace  Oil & Gas  Medical  Fluid Power  General Industrial  Water & Wastewater
Automotive  Filtration  HVAC  Pool & Spa  Agriculture  Food & Beverage
**O-RINGS**
Common O-Rings are readily available from All Seals in many sizes and materials for multiple uses. We can even customize the size and material to precisely fit your application.

**CUSTOM MOLDED RUBBER**
When the need is for non-seal type molded parts, All Seals can help. For bumpers, caps, gaskets, bellows, handles, washers, etc., All Seals delivers the solution.

**GASKETS**
Gaskets come in all shapes and sizes. All Seals can supply gaskets in a variety of materials to cover all of your sealing needs. With either small sample runs or high production usage, we have you covered.

**MECHANICAL SEALS**
High performance is a must for mechanical seals given the conditions they operate under. An extensive selection, stocked for same day shipment is also crucial to your needs. Count on us for the best quality and selection.

**HYDRAULIC SEALS**
Rod seals, piston seals, wipers, wear guides, etc. We have the solution to meet your hydraulic needs! From standard to complex multi-faceted custom designs, we’ve got you covered.

**MACHINED PLASTICS**
We have options for applications requiring special seals or custom shapes, including designs for parts produced from machined plastics, like PTFE, PEEK, PA, POM, ACETAL, PAI, PPS, and more.

**RADIAL SHAFT SEALS**
All Seals can cover all your rotary sealing needs with our extensive range of radial seals in many different styles, sizes and materials. With years of experience in the industry, we can make recommendations for all of your rotary applications.

**RUBBER-TO-METAL BONDED**
High pressure environments at times call for more than just rubber. All Seals carries standard and metric rubber-to-metal seals, such as the NAS1523 mil-spec thread-seal line. We can also help engineer a custom bonded seal for your unique application.

**ENGINEERED COMPOUNDS**
All Seals offers a wide variety of certified and uniquely developed compounds. UL approved, FDA compliant, NSF/ANSI Standard 51 and 61 Certified*, WRAS certified and 3-A Sanitary O-Rings and custom molded rubber products are all available, just to name a few.
## STANDARD COMPOUNDS

| **AFLAS®** (TFE/P, FEPM) | **OPERATING TEMPERATURE**: +15º to +600º F  
**COMPOSITION**: Medium density copolymer of tetrafluoroethylene and propylene. |
|--------------------------|----------------------------------------------------------------------------------|
| **BUTYL RUBBER** (IIR)  | **OPERATING TEMPERATURE**: -65º to +250º F  
**COMPOSITION**: Medium density copolymer of isobutylene and a small amount of isoprene. |
| **CARBOXYLATED NITRILE** (XNBR) | **OPERATING TEMPERATURE**: -10º to +250º F  
**COMPOSITION**: Medium density terpolymer of acrylonitrile, butadiene, and a diene monomer containing carboxylic acid. |
| **CHLOROPRENE RUBBER** (CR, polychloroprene, Neoprene) | **OPERATING TEMPERATURE**: -40º to +225º F  
**COMPOSITION**: Produced from the chloroprene monomer, a combination of chlorine and butadiene. Medium density. |
| **ETHYLENE ACRYLIC RUBBER** (AEM, Vamac®) | **OPERATING TEMPERATURE**: -30º to +300º F  
**COMPOSITION**: Medium density copolymer of ethylene and methyl acrylate. May also contain a small amount of a third monomer. |
| **ETHYLENE PROPYLENE RUBBER** (EPDM, EPT, Nordel IP®, Keltan®) | **OPERATING TEMPERATURE**: -60º to +250º F  
**COMPOSITION**: Low density terpolymer of ethylene, propylene, and a small amount of a diene. |
| **FLUOROCARBON RUBBER** (FKM, FPM, Viton®, Dai-El®, Technoflon®) | **OPERATING TEMPERATURE**: +15º to +600º F  
**COMPOSITION**: High density copolymer of vinylidene and hexafluoropropylene. |
| **FLUOROSILICONE RUBBER** (FVMQ, Silastic FSR®, FSE®) | **OPERATING TEMPERATURE**: -70º to +400º F  
**COMPOSITION**: Low density fluorinated silicone rubber. |
| **HIGHLY SATURATED NITRILE** (HNBR, HSN, NBM, Therban®, Zetpol®) | **OPERATING TEMPERATURE**: -25º +300º F  
**COMPOSITION**: Formed by hydrogenating the nitrile copolymer of butadiene and acrylonitrile. Medium density. |
| **NATURAL RUBBER** (NR, Hevea) | **OPERATING TEMPERATURE**: -60º to +225º F  
**COMPOSITION**: Coagulated, dried rubber derived from the latex of the Hevea Brasiliensis tree. Low to medium density. |
| **NITRILE RUBBER** (NBR, Buna N, Paracril®, Nipol®) | **OPERATING TEMPERATURE**: -30º to +250º F  
**COMPOSITION**: Medium density copolymer of butadiene and acrylonitrile. |
| **PERFLUROELASTOMER** (FFKM, Karez®, Chemraz®) | **OPERATING TEMPERATURE**: -10º to +500º F  
**COMPOSITION**: High density copolymer of tetrafluoroethylene and a perfluorinated ether. |
| **POLYACRYLATE RUBBER** (ACM, polyacrylic rubber, Hycar®) | **OPERATING TEMPERATURE**: -0º to +350º F  
**COMPOSITION**: Medium density acrylic ester copolymer. |
| **POLYURETHANE** (AU, EU, PU, Millathane®) | **OPERATING TEMPERATURE**: -40º to +180º F  
**COMPOSITION**: Low to medium density polyurethane diisocyanate. |
| **PTFE** (Teflon®, Polyflon®) | **OPERATING TEMPERATURE**: -300º to +500º F  
**COMPOSITION**: Fluorocarbon resin generically known as polytetrafluoroethylene. |
| **SILICONE RUBBER** (VMQ, PSilastic HCR®, Elastosil®) | **OPERATING TEMPERATURE**: -65º to +400º F  
**COMPOSITION**: Medium density inorganic rubber consisting primarily of polymethylsiloxane and variations. |
| **STYRENE-BUTADIENE RUBBER** (SBR, GRS, Buna-S) | **OPERATING TEMPERATURE**: -50º to +225º F  
**COMPOSITION**: Low density copolymer of styrene and butadiene. |
| **VITON™ ETP** (Viton® Extreme™) | **OPERATING TEMPERATURE**: -10º to +400º F  
**COMPOSITION**: High density terpolymer of ethylene, tetrafluoroethylene, and perfluoromethyl vinyl ether. |

VP™ is a trademark of The Chemours Company FC, LLC.
# MATERIAL PROPERTIES CHART

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<tr>
<td>Atlas® – FEPM</td>
<td>HK</td>
<td>High</td>
<td>15 to 400</td>
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<td>G</td>
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<tr>
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<td>FK</td>
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<td>G</td>
<td>G</td>
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<td>P</td>
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<td>Perfluoroplasticomer – FFKM</td>
<td>KK</td>
<td>V High</td>
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<td>P</td>
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<td>P</td>
<td>F-G</td>
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<td>Viton® ETP – FEP</td>
<td>HK</td>
<td>High</td>
<td>-10 to 400</td>
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*Excellent, good, fair and poor are intended to serve as general guidelines only. Actual testing in the application environment is always recommended.
WARRANTIES

All Seals, Inc. warrants the products to be free of defects in materials and workmanship (as defined by the engineering print or standard industry specification) for a period of ninety (90) days. Should the product(s), in All Seals’ opinion, malfunction during the warranty period, All Seals, Inc. will, at its option, repair or replace the defective product(s) at no charge provided that the product(s) have not been subjected to misuse, abuse, or non-All Seals-authorized alterations, modifications, or repairs. All Seals, Inc. provides only the warranties set forth herein. All other warranties, expressed or implied, including but not limited to the warranties of merchantability and fitness for a particular purpose, are excluded in the event the product(s) malfunction. Buyer’s sole remedy shall be repair or replacement as provided above. Under no circumstances shall All Seals, Inc. be liable in any way to the buyer or user for any damages, including any lost profits or other indirect, special, incidental or consequential damages of any kind or nature, arising out of use of, or inability to use such product.

CERTIFICATIONS

*A wide assortment of certified compounds are available. UL and NSF Certified compounds are manufactured by RT Dygert. Please contact All Seals for more information regarding UL and NSF Certified compounds.