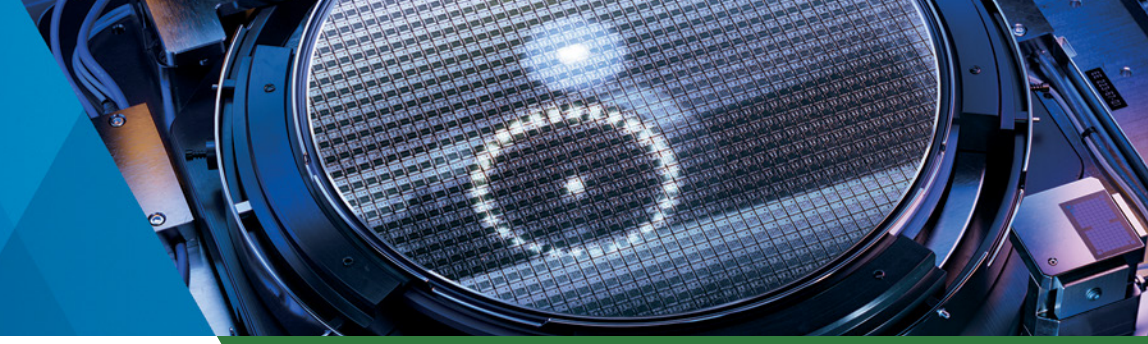


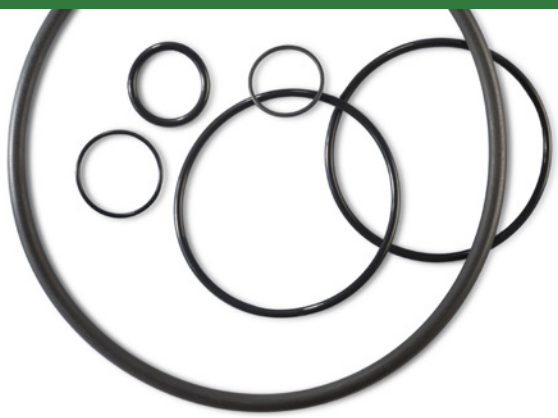
SEALING SOLUTIONS

Fusion® 742

Versatile High Performance FKM NFS

Fusion® 742 performs well in aggressive chemicals and where ultra-pure materials are not required. Recommended for conventional wet and dry system applications, Fusion® 742 has good field performance history in both dynamic and static applications. Its mid-range durometer allows the seal to conform to a wide range of hardware features.

Fusion® 742 is formulated with a non-fluorinated surfactant (NFS) polymer to meet environmental regulations without sacrificing performance for critical applications.



Typical Properties	
Physical Properties	
Color	Black
Polymer Type	Fluoroelastomer (FKM)
Specific Gravity	1.83
Hardness, Shore A*	77
Mechanical	
Tensile Strength, psi (MPa)	1941 (13.4)
Elongation, %	253
Modulus @ 50% Elongation, psi (MPa)	398 (2.7)
Modulus @ 100% Elongation, psi (MPa)	773 (5.3)
Compression Set @25% Deflection 22 Hrs. @ 392°F [200°C] in Air	8
Thermal	
Continuous Service Temperature Range	-22°F to 392°F (-30°C to 220°C)
Excursion Service Temperature Range	-22°F to 450°F (-30°C to 232°C)

Not to be used for specification purposes. Unless otherwise indicated, all tests are performed on ASTM Slabs and buttons.

** Test performed on button samples.*

Note: Color variations and dark spots that might be observed in Fusion® parts are considered cosmetic and an inherent result of the polymer curing process. They are not foreign matter and not anticipated to adversely affect the performance of the part in service. Please contact a Greene Tweed applications engineer for additional information.

Features & Benefits

- Performs well in both dynamic & static applications
- Outstanding physical properties
- Conforms well to hardware features
- Good performance history in aggressive chemicals

Applications

- Bonded slit valve doors
- Chamber seals
- Door seals
- Window seals
- Lid seals
- Gas inlet seals
- KF fitting seals
- Valves seals
- Gaskets
- Fitting and union seals

Recommended Process Applications

- Metalization (CVD, PVD, sputtering, evaporation)
- Ion implant
- Oxidation (LPCVD)/diffusion
- Deposition (CVD, PECVD, RPCVD, HDCVD, APCVD, SACVD, DCVD)
- Dry plasma etch
- Dry ashing
- Wet etch (acid, base)
- Wet metal plating
- Implant anneal

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Statements and recommendations in this publication are based on our experience and knowledge of typical applications of this product and shall not constitute a guarantee of performance nor modify or alter our standard warranty applicable to such products.

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