

Fusion™ 665

Sealing Systems



AGT® Piston Seal Assembly
using Fusion™ 665





Features and Benefits

- Low-temperature FKM
(-70°F/-57°C)
- High-temperature capabilities
(450°F/232°C)
- Excellent chemical compatibility
- Exceeds AMS 7379 and
AMS-P-83461 specification
requirements

Greene Tweed's Fusion™ FKM 665 is a new generation, ultra-low-temperature, and chemical-resistant elastomer. It achieves outstanding low-temperature performance without compromising high-temperature performance.

Fusion™ 665 is specifically formulated to meet and exceed the requirements of Aerospace Material Specification (AMS) 7379 and AMS-P-83461.

Before Fusion™ 665, elastomer material selection required trade-offs – optimal low-temperature performance meant sacrificing high-temperature operating range, chemical compatibility, or dynamic sealing performance. Fusion™ 665 was developed as a true -65°F (-53°C) FKM elastomer to overcome existing limitations of comparable materials:

	Fusion™ 665	NBR	FVMQ	FKM
 Low-Temperature Sealing	✓	✓	✓	✗
 High-Temperature Sealing	✓	✗	✗	✓
 Broad Chemical Compatibility	✓	✗	✗	✓
 Abrasion Resistance	✓	✓	✗	✓
		NBR (Nitrile Butadiene Rubber)	FVMQ (Fluorosilicone Rubber)	FKM (Fluorocarbon Rubber)

Fusion™ 665 – A Variety of Products and Shapes

From simple o-rings to metal-bonded jackets, and all standard Greene Tweed seals, Fusion™ 665 is available in many different products and shapes.

Contact Us

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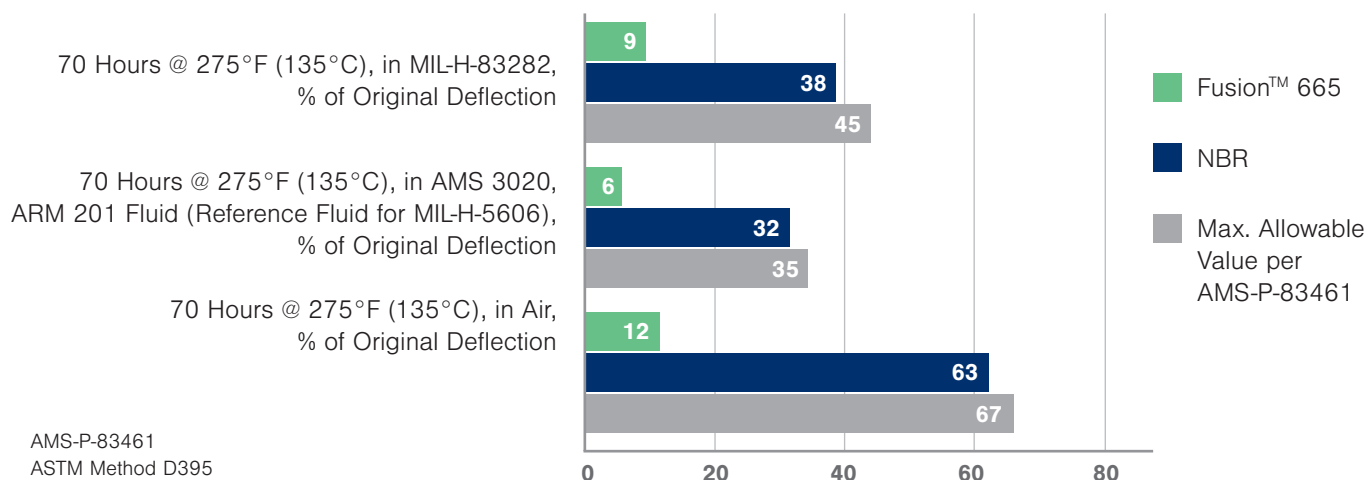
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Compression set at high temperatures is one of the leading causes of seal leakage, particularly when those seals are then required to operate at low temperatures. How Does Fusion™ 665 Compare to NBR?

Compression Set Results



Typical Properties (AMS Standard)

Color	Black
Hardness, Shore A, Points (AMS 7379)	75
Tensile Strength, psi (MPa) (AMS 7379)	1,570 (10.8)
Ultimate Elongation, % (AMS 7379)	170
Compression Set @ 25% Deflection, % of Original Deflection, 70 Hours @ 275°F/135°C, in MIL-PFR-83282 Fluid (D1414)	6
Compression Set @ 25% Deflection, % of Original Deflection, 336 Hours @ 275°F/135°C, in MIL-PFR-83282 Fluid (D1414)	9
Low-Temperature Retraction, °F/°C, TR-10/50, O-Rings (D1329)	-50°F/-46°C

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