



M-Cor Technical Data Sheet

MC-FFKM-FDA/USPVI

Product Description

MC-FFKM-FDA/USPVI is M-Cor's high-purity perfluoroelastomer designed for FDA and USP Class VI applications where thermal stability, chemical resistance, and very low extractables are required. The compound is engineered to match the performance profile of Kalrez® 6230 in all critical categories.

Typical Physical Properties

Property	Value	Test Method
Color	Black	
Maximum Application Temperature	260°C (500°F)	
Maximum Application Pressure	8.27 MPa (1200 psi)	
Durometer (Shore A)	75	ASTM D2240
100% Modulus	7.03 MPa (1020 psi)	ASTM D412
Elongation at Break	170%	ASTM D412
Tensile Strength	16.54 MPa (2400 psi)	ASTM D412
Compression Set (70h @ 204°C)	24% Pellet / 30% O-Ring	ASTM D395B
Specific Gravity	1.99	

Equivalency Reference

For a complete side-by-side comparison of MC-FFKM-FDA/USPVI versus Kalrez® 6230, please refer to the Equivalency Comparison Chart on the following page.

MC-FFKM-FDA/USPVI vs. Kalrez® 6230

Full Equivalency Comparison Chart

Property	Kalrez® 6230	MC-FFKM-FDA/USPVI	Equivalent?
Color	Black	Black	Yes
Maximum Application Temperature	260°C (500°F)	260°C (500°F)	Yes
Maximum Application Pressure	8.27 MPa	8.27 MPa	Yes
Durometer (Shore A)	75	75	Yes
100% Modulus	7.03 MPa	7.03 MPa	Yes
Elongation at Break	170%	170%	Yes
Tensile Strength	16.54 MPa	16.54 MPa	Yes
Compression Set	24% / 30%	24% / 30%	Yes
Specific Gravity	1.99	1.99	Yes

Low-Temperature Performance Comparison

Low-Temperature Property	Kalrez® 6230	MC-FFKM-FDA/USPVI	Equivalent?
Glass Transition (T _g)	-3°C	-3°C	Yes
TR-10	-3°C	-3°C	Yes
Brittle Point	< -20°C	< -20°C	Yes
Lowest Service Temperature	-20°C	-20°C	Yes
Dynamic Seal Limit	< -10°C not recommended	< -10°C not recommended	Yes
Static Seal Limit	Functional to -20°C	Functional to -20°C	Yes

Regulatory & Purity Compliance

Compliance Requirement	Kalrez® 6230	MC-FFKM-FDA/USPVI	Equivalent?
FDA 21 CFR 177.2600	Compliant	Compliant	Yes
USP Class VI	Meets Requirements	Meets Requirements	Yes
Low Extractables	Trace Levels	Trace Levels	Yes
Steam Cycling Resistance	Excellent	Excellent	Yes