Kimura® K23X

Specialty Elastomer

Precision Polymer Engineering Ltd.

Message:

A brown coloured high performance polymer containing a unique self- reinforcing polymer structure, developed specifically for aggressive semiconductor applications. The high purity of the polymer combined with the absence of any fillers makes this polymer suitable for processes involving lower feature sizes. This material has a low coefficient of thermal expansion, low compression set and has an extremely low etch rate in aggressive plasma environments.
Kimura® K23X can be fully moulded into custom shapes and O-rings (from 6.07mm/0.24" ID & 1.78mm/0.07" CS up to 600mm/23.6" ID & 10mm/0.39" CS).
Key Attributes
Exceptionally pure - does not contain any fillers which may cause particulation problems.
Low modulus ensures excellent sealing characteristics
Outstanding plasma resistance - ideal for Chlorine, Fluorine & Oxygen chemistries.
Exceptionally low plasma etch rate
Low thermal expansion
Retro-fits existing O-ring grooves (including FKM & FFKM grooves)
Low permeation
Low out-gassing
Low adhesion (reduced sticking)
Typical Applications
Dynamic seals
Static seals
Wafer-handling products

General Information	
Features	The degassing effect is low to no High purity Low CLTE
Uses	Electrical/Electronic Applications Valve/valve components Seals Accessories
Appearance	Brown

Hardness	Nominal Value	Test Method
Durometer Hardness (Shore A)	70	ASTM D2240, ISO 7619
IRHD Hardness	70	ASTM D1415, ISO 48

Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	6.70	MPa	ASTM D412, ISO 37
Tensile Strength (Yield)	12.0	MPa	ASTM D412, ISO 37
Tensile Elongation (Break)	150	%	ASTM D412, ISO 37
Compression Set (204°C, 72 hr)	25	%	ASTM D395, ISO 815

Thermal	Nominal Value	Unit
Maximum Operating Temperature	270	°C

Coefficient of Linear Thermal Expansion	2.20E-4

Additional Information

Minimum Operating Temperature: -15°C (+5°F)

Recommended distributors for this material

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