

# Kimura® K2CD

Specialty Elastomer

Precision Polymer Engineering Ltd.

## Message:

A red/brown 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.

### Key Attributes

Exceptionally pure - does not contain any fillers which may cause particulation problems.

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		
	Low compressive deformability		
Uses	Electrical/Electronic Applications		
	Valve/valve components		
	Seals		
	Accessories		
Appearance	Brown		
	Red		
Hardness	Nominal Value		Test Method
Durometer Hardness (Shore A)	68		ASTM D2240, ISO 7619
IRHD Hardness	67		ASTM D1415, ISO 48
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	8.00	MPa	ASTM D412, ISO 37
Tensile Strength (Yield)	17.0	MPa	ASTM D412, ISO 37
Tensile Elongation (Break)	170	%	ASTM D412, ISO 37
Compression Set (204°C, 72 hr)	15	%	ASTM D395, ISO 815
Thermal	Nominal Value	Unit	

Maximum Operating Temperature	300	°C
Coefficient of Linear Thermal Expansion	2.45E-4	
Additional Information		
Minimum Operating Temperature: -15°C (+5°F)		

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#### Recommended distributors for this material

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