CP65TB11 Datasheet

Translucent Brown Perfluoroelastomer 65A for Semicon

Overview

Canrez® CP65TB11 is a 65A semi-translucent FFKM designed for semiconductor use, offering excellent plasma resistance, chemical resistance & performance at an affordable price. Compare to Kalrez® 9100.

Semiconductor Applications

- RPCVD, PECVD, SACVD, ALD, & HDPCVD
- CVD, LPCVD, & APCVD deposition
- Ashing
- Oxide & metal plasma etching
- Evaporation & PVD metallization
- Ion Implant & Sputtering
- Lamp Anneal, Oxidation, RTP, & Diffusion

Features & Benefits

- Excellent Plasma Resistance
- Near universal chemical resistance
- High Temperature Resistance
- Low Compression Set
- Cost Effective

Service Temperature

-20°C to 300°C (-4°F to 572°F)

Test Data

Table 1. Physical Properties	
Color	Translucent Brown
Hardness, Shore A	65
Tensile Strength, psi (MPa)	1740 (12)
Elongation	180%
Specific Gravity, g/cm^3	2.01

Table 2. Compression Set	
70hrs at 204°C	12

Looking for specific chemical compatibilities or desire more material information? Please Contact Us!

Rev E - Update: 01/10/2025

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Canrez® CP65TB11 vs Kalrez® 9100

Canrez® CP65TB11 rivals Kalrez® 9100 in plasma resistance and sealing reliability for semiconductor applications, offering a cost-effective alternative without sacrificing performance.

Both materials deliver outstanding sealing reliability and plasma resistance, but Canrez® CP65TB11 stands out for its affordability and accessibility without compromising on critical performance metrics.

Table 3. PECVD Remote NF3 Plasma	
Canrez® CP65TB11 Mass Loss, %	0.20
Kalrez® 9100 Mass Loss, %	0.35

PECVD Remote NF3 Plasma Images

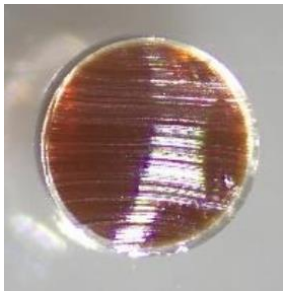
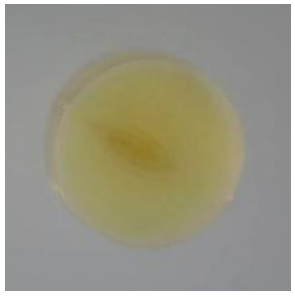
Canrez® CP65TB11	Kalrez® 9100
	
	

Table 4. PECVD Remote NF3 Plasma Test Process Conditions	
Plasma Power, Watts	1000
Pressure, Torr	6
Heater Temperature, °C	200
Gas Flow NF3, SCCM	3000
Gas Flow Air, SCCM	5000
Process Time, minutes	2880

Table 5. ICP Chamber Direct Plasma		
Gas	CP65TB11	9100
O2, Mass Loss %	11.4	9.2
CF4, Mass Loss %	9.7	9.2
O2 + CF4, Mass Loss %	17.1	17.4

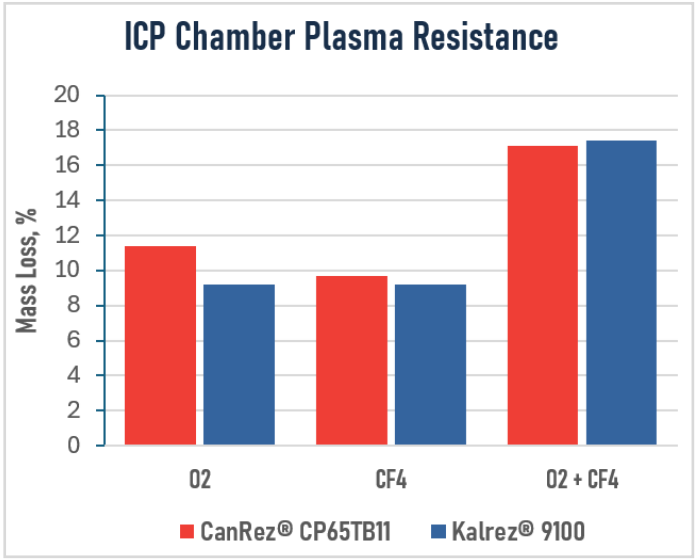


Table 6. ICP Chamber Direct Plasma Test Process Conditions			
Process	O2	CF4	O2 + CF4
Temperature, °C	100	100	100
Time, minutes	60	60	60
Pressure, Pa	2	5	2
Gas Flow, SCCM	80	80	40/40
Powder	800 / 100	800 / 100	800 / 100

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