

MARKEZ® Z1407 PERFLUOROELASTOMER TECHNICAL DATASHEET

TRANSLUCENT NANOFILLED PERFLUOROELASTOMER

Markez Z1407 a perfluoroelastomer material developed for applications such as plasma, wet wafer processing, laser and medical applications where high performance and purity are critical. This compound is formulated with nanoparticles of PTFE which act as an ultrapure organic filler.

FEATURES AND BENEFITS

- Excellent chemical resistance
- Extremely low extractables
- Good plasma resistance
- Good high temperature resistance

APPLICATIONS

- Chemical industry
- Medical & laser
- Semiconductor
 - Deposition: LPCVD, CVD, APCVD
 - HDPCVD, PECVD, RPCVD, SACVD
 - Plasma etch: oxide and metal
 - Ashing
 - Metalization: PVD, evaporation
 - Sputtering, Ion Implant
 - RTP, Oxidation, Diffusion, Lamp Anneal



TYPICAL PHYSICAL PROPERTIES

Properties	ASTM Test	Value
Color		Clear Amber
Material Type	FFKM	Perfluoroelastomer
Hardness: (°IRHD)	D1415	
Hardness, Shore A	D2240	72
Tensile Strength MPa (psi)	D412	17.35 (2500)
Modulus @ 100%, MPa (psi)	D412	4.7 (682)
Elongation at Break	D412	230%
Compression Set 72 hrs. @ 200°C (392 °F)	D395	19%
Minimum Operating Temperature		-15°C (5°F)
Maximum Operating Temperature		280°C (536°F)
Specific Gravity		2.05

This information is to the best of our knowledge accurate and reliable. However, Marco Rubber makes no warranty, expressed or implied, that parts manufactured from this material will perform satisfactorily in the customer's application. It's the customer's responsibility to evaluate parts prior to use.

Markez® is a Registered Trade name of Marco Rubber.

Radiation Resistance – 1 MRad @ 23°C	Typical Results
Tensile Strength Change, %	0
Modulus @ 100% Change, %	0
Elongation at Break Change, %	-2
Hardness Change, points	2

Radiation Resistance – 10 MRad @ 23°C	Typical Results
Tensile Strength Change, %	-24
Modulus @ 100% Change, %	13
Elongation at Break Change, %	-15
Hardness Change, points	5

Radiation Resistance – 100 MRad @ 23°C	Typical Results
Tensile Strength Change, %	-86
Modulus @ 100% Change, %	-
Elongation at Break Change, %	-91
Hardness Change, points	20

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