

Perlast® G100XT

Perfluoroelastomer

Precision Polymer Engineering Ltd.

Message:

A visibly clear and highly reinforced perfluoroelastomer, combining ultra- high purity with excellent mechanical properties. Developed for use in advanced wet and dry semiconductor processes down to the 45nm node and beyond, this material has ultra-low out-gassing properties, high temperature stability and excellent plasma resistance to provide effective sealing in extreme conditions.

Perlast® G100XT combines a fully fluorinated polymer backbone with a highly fluorinated cross-linking system to provide a material with exceptional resistance to high temperature and aggressive semiconductor processes. The fully organic structure of the material helps to eliminate particles and reduce cost of ownership. The superior chemical performance of the material is enhanced by exceptionally low compression set, high elongation and ultimate tensile strength.

Perlast® G100XT has a low modulus, giving it a very high sealing efficiency. The material is highly resistant to stress induced chemical attack in constant compression or constant strain environments, leading to longer service life and reliable sealing performance.

Key Attributes

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

High temperature stability

Exceptionally low compression set

Excellent mechanical properties

Ultra low out-gassing

High sealing efficiency

Reduced Cost of Ownership (CoO)

Typical Applications

Static Seals

Wafer Handling Products

General Information			
Features	The degassing effect is low to no		
	High purity		
	Low compressive deformability		
	High tensile strength		
	Heat resistance, high		
	Thermal stability, good		
	Extended tensile rate		
Uses	Electrical/Electronic Applications		
	Seals		
Appearance	Clear/transparent		
Hardness	Nominal Value	Test Method	
Durometer Hardness (Shore A)	62	ASTM D2240	
IRHD Hardness	60 - 70	ASTM D1415, ISO 48	
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	2.30	MPa	ASTM D412, ISO 37
Tensile Strength (Yield)	16.0	MPa	ASTM D412, ISO 37
Tensile Elongation (Break)	280	%	ASTM D412, ISO 37
Compression Set	ASTM D395, ISO 815		

200°C, 22 hr	17	%	ASTM D395, ISO 815
200°C, 70 hr	21	%	ASTM D395, ISO 815
Thermal	Nominal Value	Unit	
Maximum Operating Temperature	275	°C	
Additional Information			
Minimum Operating Temperature: -20°C (-4°F)			

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Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519
Phone: +86 13424755533
Email: sales@su-jiao.com
No. 215, Lianhe North Road, Fengxian District, Shanghai, China



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