

Perlast® G70H

Standard perfluoroelastomer for Solar and FPD applications

PERLAST®

Description

Perlast® G70H provides optimal performance in high-temperature, chemically and mechanically demanding environments. This highly reinforced material offers extended seal life, offering low plasma etch rates in flat panel and thin-film solar CVD processes and the high mechanical strength needed to cope with the high forces repeatedly applied in these large scale applications.

Perlast® G70H is available as fully moulded O-rings (any size up to 2m/6.5ft internal diameter) and fully moulded formed slit valve door seals up to 3m in length for generation 10 and above.



Key Attributes

- ▶ Excellent plasma resistance
- ▶ High temperature performance
- ▶ High mechanical strength
- ▶ High abrasion resistance
- ▶ Extremely low out-gassing properties

Typical Applications

Slit valve door seals
ISO valve seals
Load lock seals
NW / KF / ISO O-rings

Other materials in this range

Perlast® G74P (translucent high-purity grade)
Perlast® G75H (white ultra-high temperature up to +320°C/+608°F)

Perfluoroelastomers are not suitable for use with molten alkali metals.

Typical Material Properties

Property	ASTM	ISO	Value
Material Type	FFKM	FFPM	
Colour			White
Hardness: (°IRHD) (Shore A)	D1415 D2240	ISO48	70
Tensile Strength (MPa)	D412	ISO37	14.7
Elongation at break (%)	D412	ISO37	200
100% Modulus (MPa)	D412	ISO37	9.3
Compression Set (%): 24 hrs @ 200°C (392°F)	D395	ISO815	17
Minimum Operating Temperature			-15°C (+5°F)
Maximum Operating Temperature			+310°C (+590°F)
Coefficient of Thermal Expansion (°C ⁻¹)			4 x 10 ⁻⁴

SPECIAL NOTE: This information is to the best of our knowledge accurate and reliable. However, PPE Ltd makes no warranty, expressed or implied, that parts manufactured from this material will perform satisfactorily in the customer's application. It is the customer's responsibility to evaluate parts prior to use, especially in applications where their failure may result in injury and/or damage. It should also be noted that all elastomeric parts have a finite life, therefore a regular program of inspection and replacement is strongly recommended. In non-black grades of elastomer, it is possible to observe slight variations in colour. This is normal and is inherent in the part; it is not indicative of foreign matter. These colour variations are not expected to adversely effect the performance of the part. The material properties above should not to be used for specification purposes.



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