

# Perlast® G75S

Pure white high temperature perfluoroelastomer for Life Science applications

## PERLAST®

### Description

Perlast® G75S has been specifically developed to cope with a wide range of process media, potent active pharmaceutical ingredients (API's) and aggressive cleaning agents, being especially suited to withstand steam-in-place (SIP) and clean-in-place (CIP) procedures within pipe work and vessels. G75S is also suitable for other critical applications such as Water-For-Injection (WFI) systems.

Perlast® G75S is an all round material that can be used for all types of applications requiring FDA and USP Class VI compliance. It is suitable for use in all product contact applications including dry, aqueous and fatty media.

Unlike other FDA compliant elastomers, Perlast® G75S is thermally stable at higher temperatures, and is ideal for use in applications which require exposure to temperatures up to 310°C (590°F) making it suitable for use in Stage II Sterilization processes.

Perlast® G75S is suitable for both dynamic and static applications and can be moulded into O-rings and custom shapes.

### Key Attributes

- ▶ Excellent chemical resistance to a wide range of chemicals
- ▶ Superior mechanical properties
- ▶ High elongation at break assists installation
- ▶ High tensile strength makes G75S ideal for dynamic applications
- ▶ Excellent steam resistance (ASME BPE 2000)
- ▶ FDA compliant - extraction tested to CFR 21 § 177.2600(e,f)
- ▶ USP Class VI <88> and USP <87> compliant
- ▶ 3-A Standard 18-03 Class 1 compliant
- ▶ Free from Animal Derived Ingredients (ADI)

### Typical Applications

Recommended for use in pharmaceutical, bio-analytical and food processing applications, where both mechanical and chemical properties are crucial, and hygienic sealing capability is critical.

**Dynamic seals -** Split Butterfly Valve Seals  
Ball Segment Valve Seals

**Static seals -** O-rings  
Pressure Safety Rings  
Gaskets  
Hygienic & Sanitary couplings  
Mechanical seals for stirring/mixing screws & pumps



### Typical Material Properties

Property	ASTM	ISO	Value
Material Type	FFKM	FFPM	
Colour			White
Hardness: (°IRHD) (Shore A)	D1415	ISO48	75
	D2240		80
Tensile Strength (MPa)	D412	ISO37	19.0
Elongation at break (%)	D412	ISO37	237
100% Modulus (MPa)	D412	ISO37	8.8
Compression Set: 72 hrs @ 200°C (392°F)	D395	ISO815	20
Minimum Operating Temperature			-15°C (+5°F)
Maximum Operating Temperature			+310°C (+590°F)
Coefficient of Thermal Expansion (°C <sup>-1</sup> )			3.0x10 <sup>-4</sup>

**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 affect the performance of the part. The material properties above should not be used for specification purposes.

Perlast® is a registered trademark of Precision Polymer Engineering Limited.



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