


Precision Polymer Engineering Limited				
PERLAST® Data Sheet	Material Code	G60S	Issue 3 Revision 5	
	Designation	FFKM	June 2005	

MATERIAL TYPE: Perlast® G60S FFKM White Perfluoroelastomer 56-65 °IRHD.

Excellent chemical resistance, steam resistance and mechanical properties. Suitable for use in all food applications, and extraction tested in accordance with United States Food and Drug Administration (FDA) requirements, Code of Federal Regulations CFR 21 § 177.2600(e,f). In July 2004, G60S gained Food Contact Notification status (FCN) from the FDA (FCN000402). Do not use any *Perlast®* grade with molten alkali metals.

TEMPERATURE RANGE: Maximum operating temp: +260 °C (500°F). Minimum operating temp: -15 °C (+5°F).

TYPICAL PHYSICAL PROPERTIES:			
Property	Unit	Test Method	Value
Hardness (points)	°IRHD	ASTM D 1415 (=ISO 48)	60
Tensile strength	MPa	ASTM D 412 (=ISO 37)	14.1
Elongation at break	%	ASTM D 412 (=ISO 37)	155
100% Modulus	MPa	ASTM D 412 (=ISO 37)	11.6
Compression Set, Method B;			
24 hours at 150°C (302°F)	%	ASTM D 395 (=ISO 815)	36
Heat Resistance;			
72 hours at 250°C (482°F)		ASTM D573 (=ISO 188)	
Hardness change (points)	°IRHD	ASTM D 1415 (=ISO 48)	+3
Tensile strength change	%	ASTM D 412 (=ISO 37)	-35
Elongation at break change	%	ASTM D 412 (=ISO 37)	+20
Extraction Results CFR 21 § 177.2600 (e,f):			
FDA Regulation	Extraction Test	Authorised Limits mg/sq. inch	Material Extracted
Distilled Water	First 7 hours	20	0.9,1.2
	2 succeeding hours	1	<0.1,<0.1
n-Hexane	First 7 hours	175	<0.1, <0.1
	2 succeeding hours	4	<0.1, <0.1

STORAGE RECOMMENDATION: Initial storage = 10 years, extended storage = additional 5 years.

HEALTH & SAFETY DATA: No known hazard exists if used in accordance with the temperature range as quoted.

FIRE HAZARD: Ignition temperature >400°C (750°F).

Thermal decomposition will generate hydrogen fluoride, fluorinated hydrocarbons, carbon monoxide and carbonyl fluoride. In the event of fire, fire fighters must wear self-contained breathing apparatus and a protective suit. Extinguish with water, foam, carbon dioxide or dry chemical. Neutralise any refuse from a fire involving perfluoroelastomer with calcium hydroxide solution and wear Neoprene® gloves when handling.

DISPOSAL: Must conform to national, state and/or local regulations. Landfill is recommended. Burning is not recommended, unless conducted by an approved/licensed incineration agency.

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SPECIAL NOTE: This information is to the best of our knowledge accurate and reliable. However, PPE make 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.

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