


<b>Precision Polymer Engineering Limited</b>				
<b>PERLAST®</b> Data Sheet	Material Code	<b>G90A</b>	Issue 1 Revision 1	
	Designation	<b>FFKM</b>	November 2004	

**MATERIAL TYPE:** *Perlast*® G90A. Perfluoroelastomer 86-90 °IRHD.  
A black general purpose perfluoroelastomer compound with excellent chemical resistance.

**APPLICATION:** Exceptionally high chemical resistance and excellent steam resistance and mechanical properties. Extremely low outgassing properties. Do not use any *Perlast*® grade with molten alkali metals.

**TEMPERATURE RANGE:** Maximum operating temperature: **+260 °C (500°F)**.  
Minimum operating temperature: **-10 °C (+14°F)**.

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

<b>TYPICAL PHYSICAL PROPERTIES:</b>			
Property	Unit	Test Method	Value
Hardness (points)	°IRHD	ASTM D 1415 (=ISO 48)	86
Tensile strength	MPa	ASTM D 412 (=ISO 37)	23.0
Elongation at break	%	ASTM D 412 (=ISO 37)	105
100% Modulus	MPa	ASTM D 412 (=ISO 37)	19.0
<b>Compression Set, Method B;</b>			
24 hours at 200°C (392°F)	%	ASTM D 395 (=ISO 815)	22
<b>Heat Resistance;</b>			
72 hours at 250°C (482°F)		ASTM D573 (=ISO 188)	
Hardness change (points)	°IRHD	ASTM D 1415 (=ISO 48)	+1
Tensile strength change	%	ASTM D 412 (=ISO 37)	-10
Elongation at break change	%	ASTM D 412 (=ISO 37)	+45
100% Modulus change	%	ASTM D 412 (=ISO 37)	-45

**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.

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

**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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