

## **Momentive Performance Materials HTR1003 PBN/PG Heating Element**

Category: Carbon, Graphite, Ceramic, Nitride

## **Material Notes:**

PBN/PG resistance heating elements combine the unique electrical, chemical, and thermal properties of PBN, a dielectric material, and Pyrolytic Graphite (PG), an electrical conductor, to produce a truly advanced heating system. These non-brittle refractory materials owe their exceptional purity to the high temperature, chemical vapor deposition (CVD) production method. The high thermal conductivity and anisotropy of both materials result in excellent thermal uniformity.Performance Advantages: PBN/PG "printed circuit" heaters utilize PBN as an insulating substrate and Pyrolytic Graphite as the resistive element. This combination of unique materials delivers performance advantages not available in conventional thermal systems.Operating temperatures to 1800° C.Superior performance in ultra high vacuum.Chemically inert to most corrosive gases, liquids.Unaffected by most molten metals.Long life, dimensionally and electrically stable.High resistance for low cost power supplies.Mechanically durable, thermally shock resistant.Unaffected by vibration.Tailored thermal gradients for specific requirements.Wide range of resistance values to match existing supplies.Ultra-fast response, low thermal mass.Power outputs over 50 watts/cm2 (325 watts/in2).Dielectric, fully dense, ceramic surface.Information provided by Momentive Performance Materials, formerly GE Advanced Ceramics.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_Momentive-Performance-Materials-HTR1003-PBNPG-Heating-Element.php

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	1800 °C	3270 °F	

Electrical Properties	Metric	English	Comments
	0.000250 ohm-cm	0.000250 ohm-cm	
Electrical Resistivity	@Temperature 1000 °C	@Temperature 1830 °F	
	0.000520 ohm-cm	0.000520 ohm-cm	
	@Temperature 0.000 °C	@Temperature 32.0 °F	

Descriptive Properties	Value	Comments
Centerline	94.5 mm	
Contacts	Ã~4.3 x 10.5 mm on surface	
Length	94 mm	
Maximum Current	17	
Mounting Holes	Ã,4.3 mm	
Pattern Diameter	75 mm	

**Power Rating** 



Descriptive Properties	2300 Watts Value	Comments
Thickness	2 mm	
Voltage at Power Rating	170 Volts	
Width	75 mm	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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