



PBN Composite Heating Element

You are welcomed to come to our factory to buy the latest selling, low price, and high-quality Nextgen PBN Composite Heating Element. As both PG (Pyrolytic Graphite) and PBN (Pyrolytic Boron Nitride) are extremely pure (99.99% or even higher) and very stable in vacuum or inert atmosphere, the PBN-PG heating element could be very durable and keep the chamber clean.

Nextgen Advanced Materials supplies PBN/PG Composite Heating Element with high quality and fast delivery. Customization is available too.

Product Description

You can rest assured to buy customized PBN Composite Heating Element from us. We adheres to the business philosophy of "innovation goes far, seeking truth and goodness". High purity and high-performance pyrolytic boron nitride are used as the substrate for the PBN (Pyrolytic Boron Nitride) heating elements. Pyrolytic graphite (PG) is placed on the surface of PBN components by the CVD method as conductor and heater. Depending on different requirements of usage, the PG heating element could be covered by another layer of PBN or just stay open.

As both PG and PBN are extremely pure (99.99% or even higher) and very stable in a vacuum or inert atmosphere, the PBN-PG heating elements could be very durable. It could be heated to 1600°C in a very short time without emission of any gas component, the chamber is clean when using PBN/PG heaters. These heating elements are ideal products for the semiconductor industry and applications that require high temperature, high vacuum, and high purity.



PBN/PG Composite Heating Element Specification

Item	Unit	value	value
lattice constant	μ m	a:2.504x10-10	c:6.692x10-10
density	g/cm3	2.0-2.19	

resistivity		$\Omega \cdot \text{cm}$	3.11×10^{11}	
tensile strength (ab)		N/mm ²	153.86	
bend strength	c	N/mm ²	243.63	
	ab	N/mm ²	197.76	
elastic modulus		N/mm ²	235690	
Thermo conductivity			"a" direction	"c" direction
	(200°C)	W/m·k	60	2.6
	(900°C)	W/m·k	43.7	2.8
dielectric strength (at room temperature)		KV/mm	56	

Heater Size

Diameter	0.5" ~4"
Power	150~3000W
Max. Working Temp.	2400 °C

