



EMI SHIELDING PRODUCTS FROM THE PREMIER UK MANUFACTURER

Black Nickel Graphite Silicone ECB-Q

P & P Technology material reference ECB-Q is a black silicone elastomer with a nickel / graphite conductive filler.

The material can be supplied in sheet, extruded or moulded form.

Silicone offers excellent performance over a wide temperature range (-50°C to +160°C) and Nickel/Graphite provides a high level of EMI screening protection.

Conductive silicone is best used where mating surfaces are smooth and well machined. They should be mounted to provide adequate volume for the material to deflect under pressure and should be compressed by between 8 and 20% of their relaxed height for solid sections and between 20 and 100% of the height of the hollow centre of tubular sections. Moulded 'O' rings, gasket profiles and sheet materials all have their own compression characteristics according to how they are mounted and do not comply with the guidelines above.

The material is specially compounded to offer excellent physical and electrical properties over an effective temperature range of -55C to +160°C.

<u>Physical Properties</u>	<u>Test methods</u>	<u>Typical values</u>
Hardness	ASTM D-2240	60 (±5) Shore A
Specific Gravity	ASTM D-792	1.99 (±.01) g/cc
Tensile Strength	ASTM D-412	1.00 MPa
Elongation	ASTM D-412	450%
Compression Set 72 hrs @ 100°C	ASTM D-395	9% max
Electrical properties		
Volume Resistivity	Mil-G-83528C	0.02 Ω/cm max

Shielding effectiveness (Mil-G-83528) dB (Mil Std. 285 procedure)

Frequency	Attenuation
10MHz	75
400MHz	83
1GHz	83
2GHz	83
10GHz	83
18GHz	88



P & P Technology

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