

# RF/Microwave PTFE-Substrates

## NEW NH9350

**neltec**  
Subsidiary of Park Electrochemical Corp.

### Description

Nelco® product line type NH9350 material is a high performance PTFE copper clad laminate, with a nominal dielectric constant of 3.50. It is re-enforced with special woven glass developed for PTFE coating, and ceramic filled. The ratio of PTFE/Glass/Ceramic is very tightly controlled to accurately maintain the specified electrical values of the laminate and a precise thickness tolerance. NH9350 is tested in accordance to IPC L 4103 with IPC TM 650

### Typical Engineering Values:

Dielectric constant (@10 GHz):	3.50
Dissipation Factor (@10 GHz):	0.0030
Dielectric breakdown:	45KV
Volume Resistivity:	10 <sup>9</sup> MΩ/cm
Surface Resistivity:	10 <sup>7</sup> MΩ
Arc Resistance:	180 Sec
Flexural Strength Lengthwise:	158 Mpa
Flexural Strength Crosswise:	131 Mpa
Thermal Conductivity:	0.35 W/m/K
CTE X / Y:	9 / 12 ppm/°C
Z:	71 ppm/°C
Dimensional Stability:	Warp and Weft: < 500 ppm
Moisture Absorption:	< 0.08%
Flammability:	UL94V0



Neltec SA is ISO 9001: 2000 and ISO 14001: 2004 certified.

Our products comply with RoHS 2002/95/CEE:

### Controlled RF Materials Application Comparison

Application	NY9000	NX9000	NH9000	IM	N4380-13 RF
Automotive Applications	■	■	■		■
Wireless Communications		■	■		■
Cellular Base Station Antennas	■	■	■	■	
802.11 a, b and g Antennas					■
Dual Band Hi Power Passive Circuits	■	■	■	■	
High Speed Computing			■		■
Digital / Microwave Hybrid	■	■	■		■
Multilayer PCB Assemblies					
Millimeter Wave Components	■	■			
Power Amplifiers	■	■	■		■
LNB's	■	■			■
Telecommunications	■	■	■		■