

## **E-Fill 2756**

### Standard Gold Clad Nickel Powder

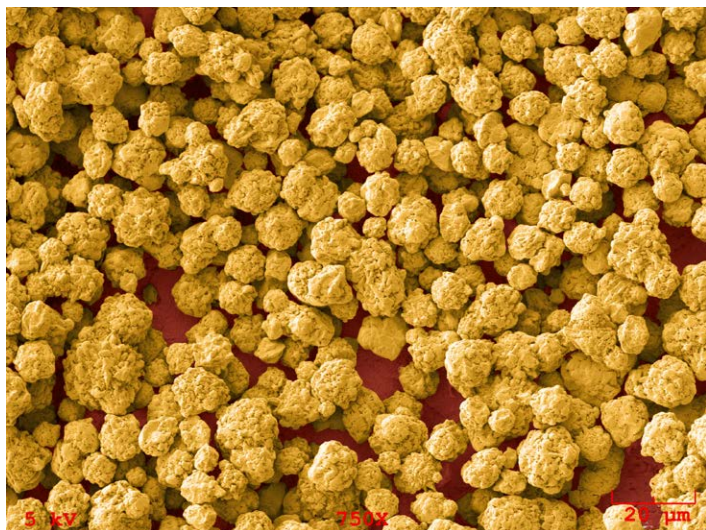
### 2Au/98Ni 20µm

E-Fill™ composite materials offer significant cost savings over pure gold without reducing performance. A gold coating less than 0.1 µm thick is all that is required to increase the conductivity\* of a material by 10 million times. The gold has the additional benefit of environmental stability, since it does not oxidize.

Oerlikon Metco Canada's proprietary nickel coating process produces a ferromagnetic pure nickel coating. These properties are maintained through the gold coating process resulting in a coated composite material that can be magnetically manipulated to optimize the orientation and performance of the material.

The pure nickel substrate offers hardness, roughness and irregular shape that works well for conductive fillers in general.

E-Fill conductive fillers are excellent for any application that requires a stable highly conductive network. Uses include keypads, microphone holders, 'z-axis' connectors and specialty adhesives and inks.



SEM photomicrograph (color added digitally)

#### Additional Information

|                                                           |                             |
|-----------------------------------------------------------|-----------------------------|
| Specified Gold Content (wt. %)                            | 1.8 to 2.2                  |
| Microtrac Values – Typical (µm)                           | D10 D50 D90<br>9 20 46 max. |
| Volume Resistivity (Ω·cm)<br>*(dry powder)                | < 0.001                     |
| True Particle Density (gm/cm <sup>3</sup> )               | ~ 9.0                       |
| Apparent Density – Hall (gm/cm <sup>3</sup> ) (ASTM B212) | ~ 2.6 typical               |
| Standard Packaging                                        | 1 kg net in plastic jars    |

\* based on internally developed measurement methods