## Surface Enhancement– Coatings

<u>Electroless Coating</u> - Our Nickel and Copper coating improves bond retention and assists the transfer of heat from the grinding area, minimizing localized overheating and avoiding thermal degradation of both the diamond and the bond. This results in extended crystal and bond life. While our standard coating is 30%,56%,60%, our electroless range can be coated to any percentage, as required by the client.

<u>Metallic PVD Coating</u> - Upon demand we can coat all our diamond and CBN range with the following coatings:

Ti - titanium, Tic - titanium carbide, TiN - titanium nitride, TiCN - titanium carbo nitride,

Si - Silicon carbide, Cu - Copper, Chrome Nickel, Cr - chromium carbide,

Zr - Zirconium, Al - aluminium, AlN - Aluminium nitride.

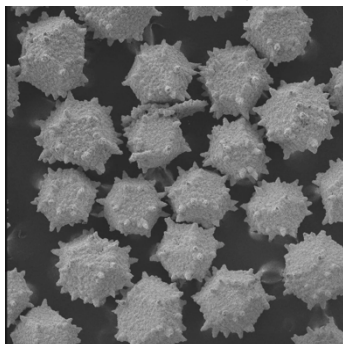| NICKEL (Smooth)	NICKEL (Spiky)	COPPER	METALLIC
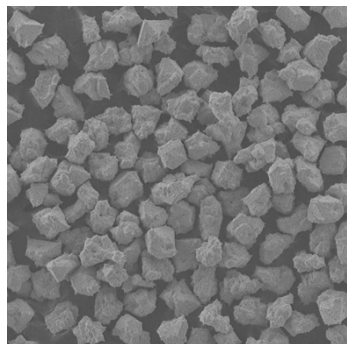
NICKEL (Smooth)

For wire slicing applications, whereby smooth nickel is required. Holds controlled iron and phosphorus levels.
Sizes: Available in all mesh sizes from 20/25 down to 400/500.
Available in micron sizes from 40/60um down to 4/6um.
Coating %: Traditionally 30%, 56%, 60%. Can be coated to any % upon request.
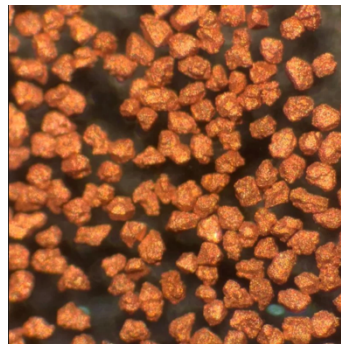
NICKEL (Spiky)

For superior "anchoring" and bond retention within your matrix - request our "super spiky" nickel cladding.
Sizes: Available in MESH 20/30 down to mesh 100/120.
Coating %: Traditionally 30%, 56%, 60%. Can be coated to any % upon request.
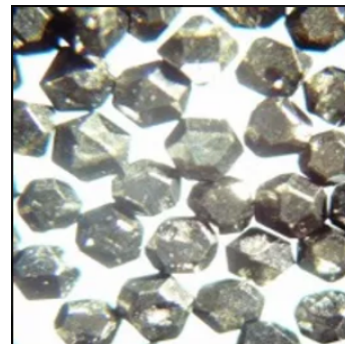
COPPER

Electroless copper in resin bonds has been found to be particularly effective in the dry grinding of cemented carbides.
Sizes: Available in mesh sizes 60/70 down to 400/500.
Available in micron sizes 40/60um down to 10/20um.
Coating %: Traditionally 50%.

METALLIC

Our metallic PVD (physical vapor deposition) coatings are engineered in order to improve our customers tool life & workpiece efficiency. these coatings are aimed to assist the chemical bonding of Metal Bond and CBN particles.
Sizes: Available from 16/18 mesh down to 10 micron.
Coating % : Traditionally between 0.5% to 3%.