Product Technical Information

Sprayable Superfine Tungsten Carbide Nickel Infralloy™ Thermal Spray Powder S7410-Ni Series

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Thermal Spray Grade

Tungsten carbide nickel is a ceramic-metal (cermet) composite material used as a wear resistant coating. The alloyed form gives superior hardness and high temperature corrosion. S7410-Ni powder is made from WC nanoparticles alloyed with a Ni binding matrix phase.

Infralloy™ Series S7410-Ni powder is available as agglomerated particles with dimension 15 < Φ < 45 μm with high flowability for HVOF thermal spray applications.

Infralloy™ S7410-Ni Powder Chemistry

WC: Ni wt ratio	90: 10
Alloy content	< 1 %
Particle size nm	100-500
Agglomerated size (μm)	-45 to +15
Coating hardness (VHN)	950 -1200

1 micron (μm) = 10^{-6} meter (m)

Suggested Applications

Inframat® Infralloy™ S7410-Ni, a 90WC/10Ni composite powder, is a superior coating material providing wear-, erosion-, and improved moderate temperature corrosion-resistant surfaces where excellent to exceptional fracture toughness is required. Features are:

- Better corrosion protection than WC/Co;
- Excellent low to moderate temperature wear properties up to 480°C (or 900°F);
- Excellent coating deposition efficiency.

The Thermal Spray Grade material can be applied with DC Arc plasma and HVOF guns.

Contact Information

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