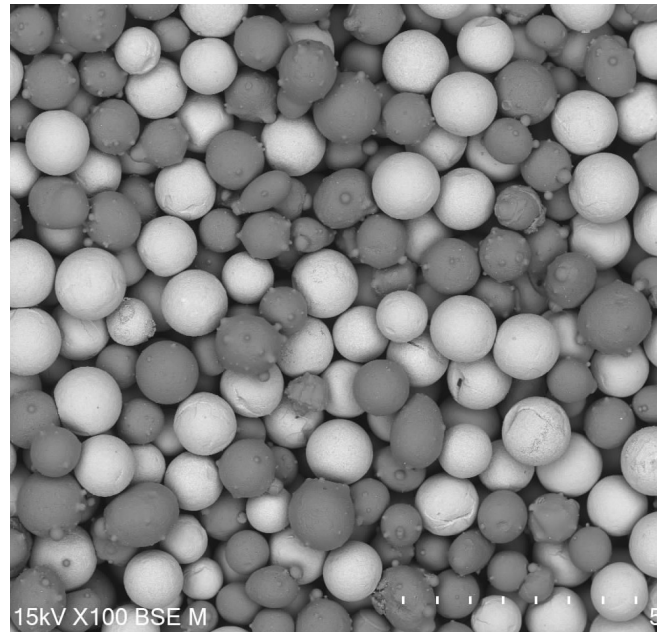




SCTC-40%NiCrBSi Blend (P-SCTC40Ni)

Product Features

Blend of spherical cast tungsten carbide and 40% by weight nickel brazing alloy powder. This specialised hardfacing material is designed for extreme wear protection. The nickel-based alloy (NiCrBSi) provides a tough, corrosion-resistant matrix that holds the hard tungsten carbide particles in place while resists cracking (high impact resistance). The powder can be applied using Plasma Transferred Arc (PTA) welding, laser cladding, HVOF (High-Velocity Oxygen Fuel) spraying, and oxy-acetylene torch surfacing.



Typical Uses and Applications

The blend is extensively used to protect ground-engaging tools, downhole tools, stabilizers, and wear-resistant valve components against severe abrasive and erosive wear.

Chemical Composition

| | W | C | Ni | Cr | B | Si | Fe |
|-------------------|------|---------|------|----------|---------|---------|-------|
| 60%CTC | Bal. | 3.6-4.2 | - | - | - | - | - |
| 40%NiCrBSi | - | <0.5 | Bal. | 9.5-12.5 | 1.5-2.5 | 3.5-4.5 | 2-4.5 |

Ni brazing alloy composition can be altered on request.

Physical Characteristics

| | Manufacturing method | Nominal particle size (μm) | Typical flow rate (s/50g) | Typical apparent density (g/cm^3) |
|----------------|----------------------|---|---------------------------|---|
| CTC | Plasma atomised | 45-106 | - | - |
| NiCrBSi | Gas atomised | 45-106 | 9.5 | 6.5 |

Other size on request

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