

TECHNICAL DATA

NISTELLE™ 2315 ALLOY

NISTELLE™ NICKEL-BASED ALLOYS are a family of austenitic nickel-chromium-based super alloys. Nistelle™ alloys are oxidation- and corrosion-resistant materials well suited for service in extreme environments subjected to pressure and heat. When heated, Nistelle™ forms a thick, stable, passivating oxide layer protecting the surface from further attack. Nistelle™'s high temperature strength is developed by solid solution strengthening or precipitation hardening, depending on the alloy. Nistelle™ alloys are typically used in high temperature applications.

NISTELLE™ 2315 is an austenitic nickel-chromium alloy (similar to NiCr8020/N06003) used for applications up to 1200°C with extended operation life compared to other Ni-Cr alloys. Nistelle™2315 possesses excellent properties of oxidation resistance, form stability, ductility, and weldability. Typical applications are industrial furnaces and home appliances, chemical processing, aerospace and marine engineering, and nuclear reactors.

NOMINAL CHEMICAL COMPOSITION (MASS%)

| ALLOY | Ni | Cr | Others |
|----------------|------|----|--------|
| Nistelle™ 2315 | Bal. | 20 | Fe, Si |

PHYSICAL PROPERTIES

| ALLOY | Hardness | Density | Melting Point |
|----------------|--------------|--------------------------|---------------|
| Nistelle™ 2315 | 160 – 180 HV | ~ 8,30 g/cm ³ | ~ 1400 °C |

PRODUCT FORMS

| Consumables for Cladding / Hardfacing and Additive Manufacturing (AM) | | | | | |
|---|--------------|----------------|---------------|-----------------|----|
| Powder | PTA Cladding | Laser Cladding | HVOF Spraying | Plasma Spraying | AM |

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