

TECHNICAL DATA

DeINite Pro 625 ALLOY

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

DeINite Pro 625 is nickel-chromium-molybdenum alloy with an addition of niobium that acts with the molybdenum to stiffen the alloy's matrix and thereby provide high strength without a strengthening heat treatment. The alloy resists a wide range of severely corrosive environments and is especially resistant to pitting and crevice corrosion. Used in chemical processing, aerospace and marine engineering, pollution-control equipment, and nuclear reactors. Widely specified for use in seawater and contaminated seawater environments. Excellent high temperature oxidation and corrosion properties.

NOMINAL CHEMICAL COMPOSITION (MASS%)

| ALLOY | Ni | Cr | Mo | Nb + Ta | Fe | Others |
|-----------------|------|------|-----|---------|-------|-----------|
| DeINite Pro 625 | Bal. | 21,5 | 9,0 | 3,7 | < 1,0 | Co, Si, C |

PHYSICAL PROPERTIES

| ALLOY | Hardness | Density | Melting Range |
|-----------------|--------------|--------------------------|----------------|
| DeINite Pro 625 | 200 – 250 HV | ~ 8,40 g/cm ³ | 1290 – 1350 °C |

PRODUCT FORMS

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

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Deloro Wear Solutions GmbH | Zur Bergpflege 51 – 53 | 56070 Koblenz | Germany
 T +49 (0) 261 8088 0 | F +49 (0) 261 8088 35
 Email us at: info@deloro.com | Visit us at: www.deloro.com