

## Corrosion Alloys

### Nickel Chromium Alloys



#### 1. Chemical composition

	Ni	Cr	Fe	Al	Others
Min. %	58.0	21.0		1.0	Ti+
Max. %	63.0	25.0	18.0	1.7	Ti+

#### 2. Physical properties

- Resistivity ( $\Omega \text{ mm}^2/\text{m}$ ) : **1.18**
- Thermal conductivity at 120 °C ( $\text{Wm}^{-1} \text{ } ^\circ\text{C}^{-1}$ ) : **11.2**
- Coefficient of linear expansion (coeff.  $10^{-6}/^\circ\text{C}$ ) from 20 to 100 °C : **13.8**
- Density ( $\text{g}/\text{cm}^3$ ) : **8.1**
- Creeping point in
  - at 800 °C : **30**
  - at 1 000°C : **10**
- Melting point (°C) : **1 411**
- Maximal operating temperature (°C) : **1 360**

#### 3. Typical Applications

This Nickel Chromium alloy with addition of aluminium confers a remarkable resistance to oxidation and other forms of corrosion, carburization and high temperature sulphidation.

It is used for furnace components (conveyer belts, securing rod for ceramic fibers, furnace tubes), It is also used in petrochemical industry and nuclear engineering.

#### 4. International standards

Werkstoff Nr 2.4851 – ASTM B168  
UNS N06601 – AMS 5870.

April 2012 - The data enclosed in this document are only given as indicative values and correspond to our standard products. Different specific requirements are subject to discussion and formal approval by Aperam Alloys Rescal. For further information or special request, please contact us.