

## Cold Rolled Strip



### 1. Description, standards & chemical

DURPHINOX is a martensitic stainless maraging steel. In the annealed condition, this alloy is relatively soft and easily formable. High yield strengths can be developed by a precipitation hardening treatment of 480°C to 540°C.

#### Chemical composition (% weight)

	Ni	Cu	Cr	Ti	Fe
Typical value	8,5	2,0	12,0	1,1	Balance

### 2. Physical properties (typical values)

Density (g/cm <sup>3</sup> )	Resistivity (μΩcm)	Saturation induction (T)	Thermal expansion between 20°C and 100°C (10 <sup>-6</sup> /°C)	Thermal conductivity (W/m/°C)
7,76	90	1,6	10,6	20,0

### 3. Mechanical properties (typical values)

Metallurgical state	Hardness (HV)	Rp0,2% (MPa)	Rm (MPa)	A%
Annealed (delivery state)	325	985	1025	7,5
After age hardening treatment of 3h at 480°	570	1775	1795	5,5
After age hardening treatment of 3h at 500°	560	1735	1765	6,5
After age hardening treatment of 3h at 520°	535	1645	1685	8,5
After age hardening treatment of 3h at 540°	485	1480	1530	10,5

### 4. Dimensions

Typical thickness (mm)	Thickness tolerance	Width tolerance (mm)			
		W ≤ 100	100 < W ≤ 150	150 < W ≤ 300	300 < W ≤ 620
0,40	+/- 5%	-0 / +0,20	-0 / +0,30	-0 / +0,40	-0 / + 0,50
0,50					
0,60					
0,635					

## 5. Form

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	Annealed
Edge burr	$\leq 10\%$ of the thickness
Edgewise curvature	$\leq 3\text{mm/m}$

## 6. Coils weight

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Coils weight	Order $\geq 500$ kg	Order $\geq 1000$ kg	Order $\geq 3000$ kg
80% of the delivery	$\geq 0,8$ kg per mm wide	$\geq 1,6$ kg per mm wide	$\geq 2$ kg per mm wide
20% of the delivery	-	$\geq 0,75$ kg per mm wide	1 to 2 kg per mm wide
Typical weight	-	2 kg per mm wide	4 to 5 kg per mm wide

- Packaging must be suitable to prevent the metal from damage during transportation or stocking in normal conditions.

## 7. Certificate

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Chemical composition : Ni, Cu, Cr, Ti

Mechanical properties (delivery state) : Hardness, Rm, Rp0,2%, A%

## 8. Norm

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AMS 5860

*The data enclosed in this document are only given as indicative values and correspond to our standard product. Different specific requirement are subject to discussion and formal approval by Aperam Alloys Imphy. For further information or special request, please contact us.*