

## Cold Rolled Strip



### 1. Description, standards & chemical

PHYTHERM 120 is an iron-nickel-copper-chromium soft magnetic alloy suitable for cookware for induction cooking. The maximum working temperature is controlled by an adapted ferromagnetic alloy with a specific Curie point.

#### International standards

IEC 404

#### Chemical composition (% weight)

	Ni	Cu	Cr	Fe
Typical value	30	3	2	Bal

### 2. Physical properties

Density (g/cm <sup>3</sup> )	Melting T° (°C - °F)	Curie T° (°C - °F)	Thermal expansion (10 <sup>-6</sup> .°K <sup>-1</sup> )	Resistivity (μΩcm)	Thermal conduction (W/°Km)	Specific heat (J.Kg <sup>-1</sup> .°K <sup>-1</sup> )
8.15	-	120 - 248	6,6	88	-	-

### 3. Mechanical properties

Temper	Hardness (HV)	Grain size	Tensile strength (MPa - KSI)	Yield strength (MPa - KSI)	Elongation (%)	Young's modulus (MPa - KSI)
Soft	110	8	440 - 64	200 - 29	35	-
Hard	210	-	690 - 100	670 - 97	4	-

*Typical values for material to be tested in accordance with NF EN 10002, NF EN ISO 6507, NFA 04102*

### 4. Standard delivery & dimensions available

Form *	Thickness(mm / ")	Width (mm / ")	Length (mm / ")	Temper
Coil - Sheet - Disc	0.30-1 / .012- .0394	10-640 / .4-25.2	500-3500 / 19.7-137.8	Soft / Hard

*\* Depending on thickness, width or diameter & temper*

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

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