

## Soft magnetic

# IMPHY SUPRA 40

IMPHY SUPRA 40 is an iron-nickel soft magnetic alloys with maximum saturation induction and high permeability with very good stampability. Main applications are clock motors parts, CTR gun grids.

### International standards

JIS C 2531

### Chemical composition

Elements (% weight)	Ni	Fe
Typical value	41	Bal

### 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	1425 - 2597	330 - 625	4.5	63	12.5	500

### Magnetic properties\*

Conditions	Thickness (mm - ")	Saturation induction (G - T at 10Oe - 80A/m)	Coercive force (Oe - A/m)	Permeability
Direct Current	0.35 - 0.0138	14500 - 1.45	0.075- 6.0	μmax 66000

\* Typical values measured on rings sample thickness. 0,350.0138/« after heat treatment at 1150°C/2102 °F in pure & dry Hydrogen (cooling rate: not critical, 50 to 100°C/hour).

### Mechanical properties\*

Temper	Hardness Hv	Ultimate strength (MPa)	Tensile strength (MPa - KSI)	Elongation %
Annealed	130	9	500	30
Hard	225	-	700	3

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

### Standard delivery & dimensions available

Form*	Coil - Sheet
Thickness (mm / ")	0.10 - 3.5 / .004 - .138
Width (mm / ")	10-640 / 0.4-25.2
Length (mm / ")	500-3500 / 19.7-137.8
Temper	Annealed / Hard

\* Depending on thickness, width & temper

### Available Forms

IMPHY SUPRA 40 is delivered in cold rolled strip. Contact us for other specific formats.

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The data enclosed in this document are 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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