

SIWATT^{...} M450-50K

NON-ORIENTED SEMI-PROCESSED ELECTRICAL STEEL

MECHANICAL PROPERTIES

	Designation	Min.	Max.
Hardness	HV ₁₀	150	200
Yield strength [MPa]	R _{p0.2}	390	480
Tensile strength [MPa]	R _m	480	570
Elongation [%]	A ₈₀	14	28

Values for yield strength, tensile strength and elongation are given for the transverse direction.

MAGNETIC PROPERTIES

	Guaranteed	Typical value
Core loss [W/kg] at 50 Hz and at 1.0 T	-	1.32
Core loss [W/kg] at 50 Hz and at 1.5 T	max. 4.50	3.30
Magnetic polarization [T] at 50 Hz and 2500 A/m	min. 1.57	1.58
Magnetic polarization [T] at 50 Hz and 5000 A/m	min. 1.65	1.67
Magnetic polarization [T] at 50 Hz and 10000 A/m	min. 1.75	1.78

DELIVERY CONDITION

Semi-processed electrical steel is delivered in cold-rolled condition. The surface roughness is controlled by the technological process of the final skin-pass reduction. The magnetic properties are developed after final annealing treatment, performed by the customer. With a well-chosen process of final annealing and decarburising excellent electromagnetic properties can be achieved.

DIMENSIONAL RANGE

SIWATT M450-50K is supplied in strips and sheets of standard dimensions. For more information please see our general catalogue.

Other dimensions are a matter of agreement between customer and SIJ Acroni.

RELATED STANDARDS

SIWATT M450-50K is produced in accordance with the following standards:

- EN 10341 – Cold rolled electrical non-alloy and alloy steel sheet and strip delivered in a semi-processed state

The information and data in this product data sheet are intended for informative purpose only and may be revised at any time without notice. Presented typical properties of the materials are described only to help readers make their own evaluations and decisions. They are not guaranteed.

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