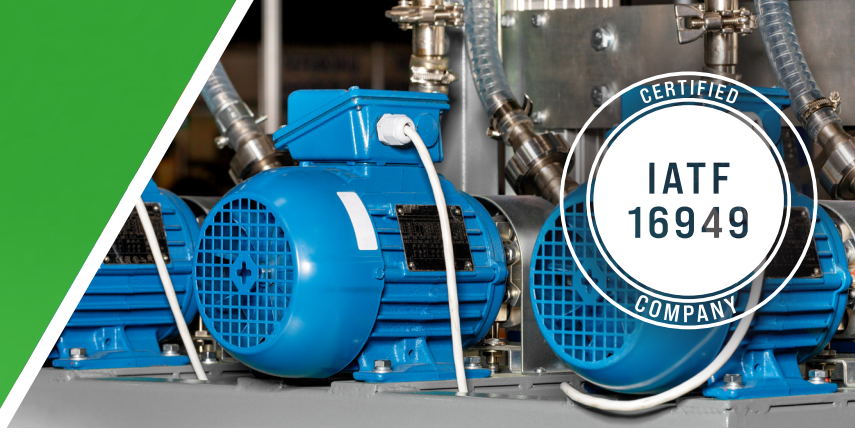


SIWATT

ELECTRICAL STEEL

FULLY-PROCESSED M-GRADES



BRAND OVERVIEW

SIWATT non-oriented electrical steel is the perfect fit for various applications involving production, conversion, and the use of electricity. It is a product that continues to evolve, with ongoing advancements in non-oriented grades with lower core losses.

What sets SIWATT apart is its excellent soft magnetic properties, great magnetising ability, high magnetic permeability, and low magnetic losses. The fully-processed electrical steels are available with insulation on both sides to achieve the desired higher surface insulation resistance and improved punchability. A well-chosen process of decarburising and final annealing assures excellent electromagnetic properties.

APPLICATIONS

Wind power, automotive industry, industrial motors, home appliances

7 REASONS TO CHOOSE SIWATT

- low core losses
- high permeability
- great weldability
- excellent stamping properties
- narrow dimensional tolerances
- various varnish options
- sustainable material choice

GRADES

0.35 mm	0.50 mm	0.65 mm
SIWATT M235-35A	SIWATT M250-50A	SIWATT M310-65A
SIWATT M250-35A	SIWATT M270-50A	SIWATT M330-65A
SIWATT M270-35A	SIWATT M310-50A	SIWATT M350-65A
SIWATT M300-35A	SIWATT M330-50A	SIWATT M400-65A
SIWATT M330-35A	SIWATT M350-50A	SIWATT M470-65A
	SIWATT M400-50A	SIWATT M530-65A
	SIWATT M470-50A	SIWATT M600-65A
	SIWATT M530-50A	SIWATT M700-65A
	SIWATT M600-50A	SIWATT M800-65A
	SIWATT M700-50A	
	SIWATT M800-50A	

STRIPS

Dimensions and weights

		Outside diameter [mm]	Coil weight [kg/mm of width]	
Coil width [mm]	30–1000	Entire coil	1100–1300	6–8.6
Inside nominal diameter [mm]	508	½ coil	870–1000	3–4.5
Outside nominal diameter [mm]	max. 1300	⅓ coil	770–850	2–2.9

Tolerances

Tolerance on nominal width		Tolerance on nominal thickness		
Nominal width	Tolerance	Nominal thickness	Tolerance	
[mm]	[mm]	[mm]	[mm]	[%]
w ≤ 150	+0.2 0	0.35	±0.03	[±8]
150 < w ≤ 300	+0.3 0	0.50	±0.04	[±8]
300 < w ≤ 600	+0.5 0	0.65	±0.04	[±6]
600 < w ≤ 1000	+1.0 0	1.00	±0.06	[±6]

SHEETS

Cut length [mm]	600–6000
Cut length tolerance [%]	+0.5 0
Width of sheet [mm]	1000
Package weight [kg]	max. 3000

Dimensional and geometrical tolerances are in accordance with standards EN 10106 and EN 10341.

Insulation coatings

AISI Designation ASTM A976	C-3	C-5	C-6	Backlack
Thermal class (IEC 60085)	H	N	H	H
Thickness of layer on each side [µm] (ISO 2178)	0.5–3	0.5–3	2–4	2–5
Composition	Organic without fillers	Organic/inorganic	Organic with fillers	Organic epoxy coating
Surface insulation resistance ¹ [Ohm cm ² /lam.] (ASTM A717)	< 20	< 70	10–200	> 100
Heat resistance [°C]	180 ²	210 ² 850 ³	180 ²	180 ²
Influence on punchability	Very favourable	Favourable	Favourable	Favourable
Influence on weldability	Conditional	Good	Conditional	n. a.
Resistance to mediums ⁴	Good	Good	Good	/
Colour ⁵	Yellow	Light grey to green	Light grey to dark grey	Transparent

¹ Surface insulation resistance depends on coating thickness.

² In air for a long time (testing for 20,000 hours at a given temperature in accordance with IEC 60085).

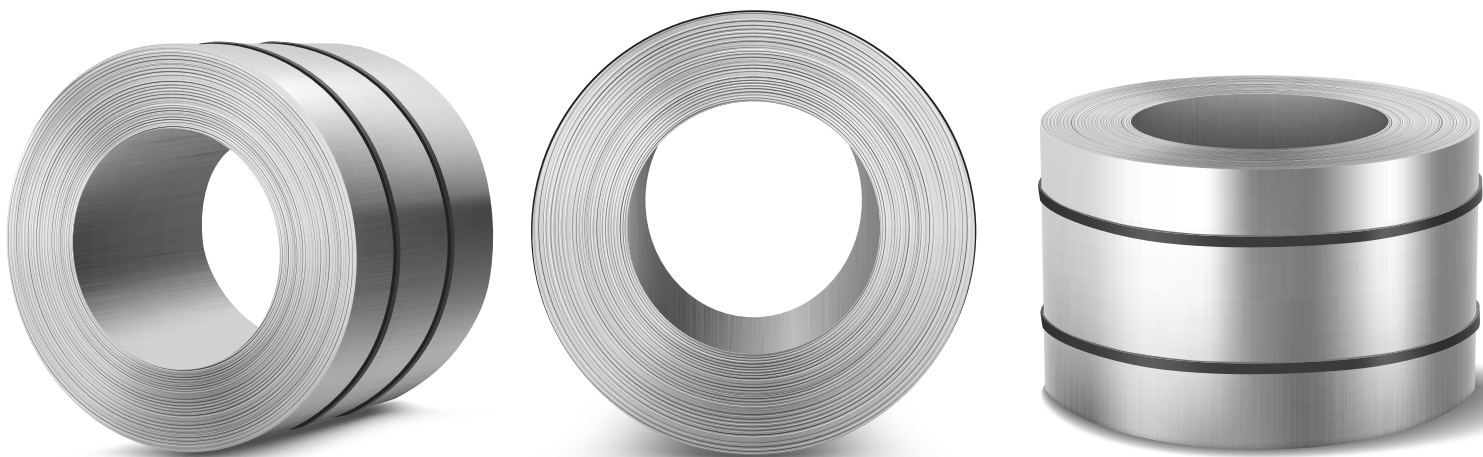
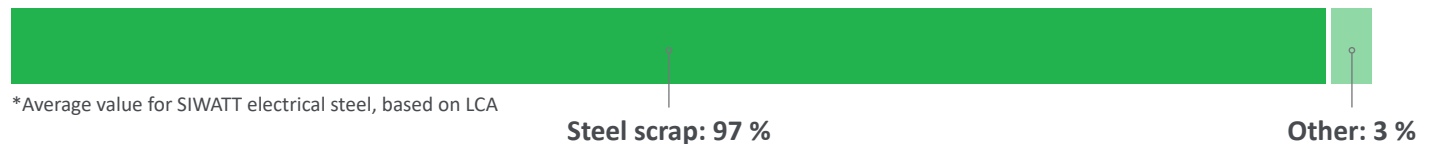
³ In a protective gas atmosphere (as stress-relief annealing).

⁴ It relates to the resistance to most different lubricants, refrigerating mediums and oils. The varnish producer tests the resistance to the specific medium only upon the customer's requirement.

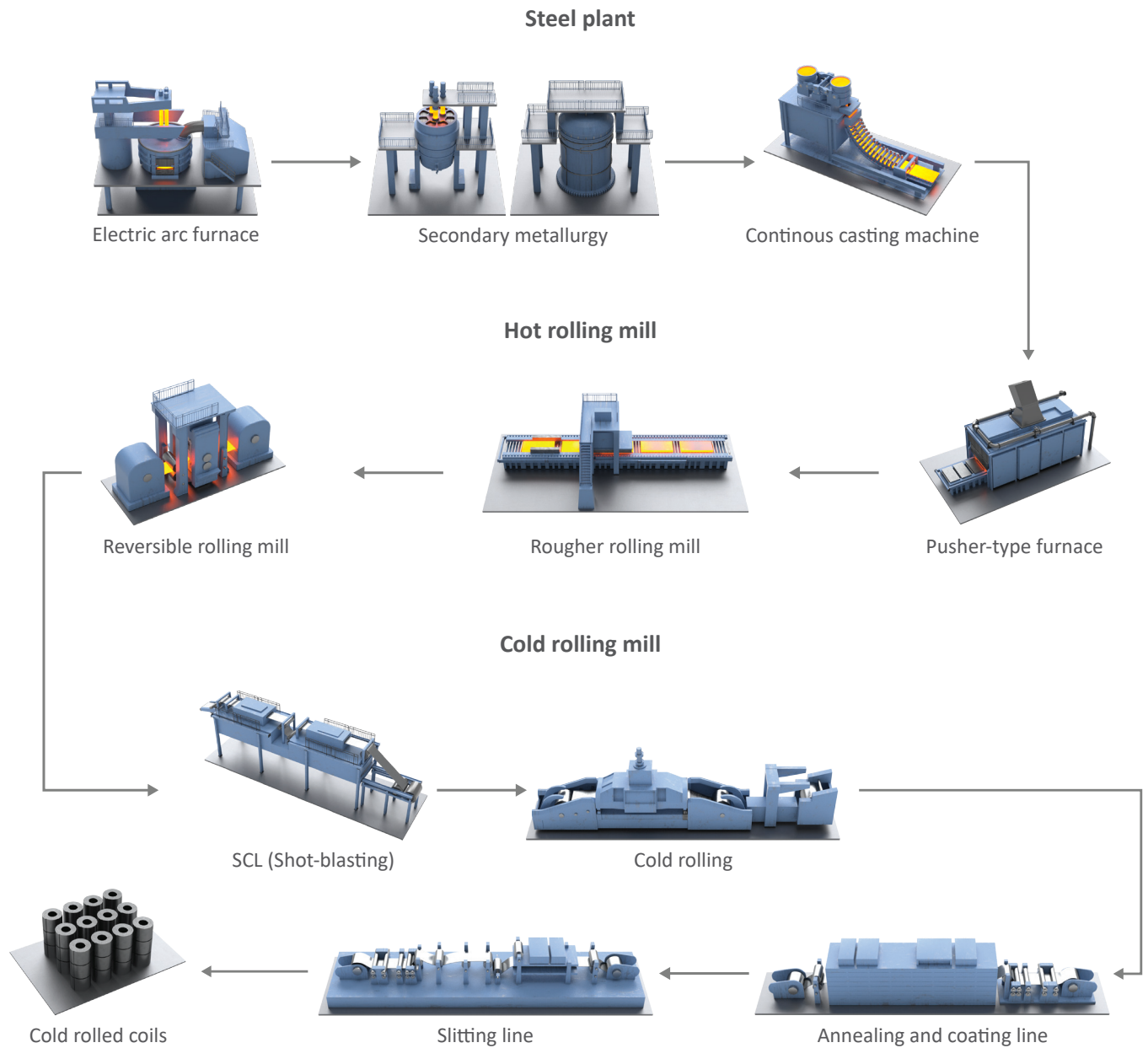
⁵ Colour shades depend on the coating thickness and the type of varnish employed.

SUPPORTING SUSTAINABLE SOLUTIONS

SIWATT embodies the essence of green steel. Made from recycled steel scrap, SIWATT electrical steel has an exceptionally low carbon footprint, which places it among the most sustainable electrical steels worldwide.



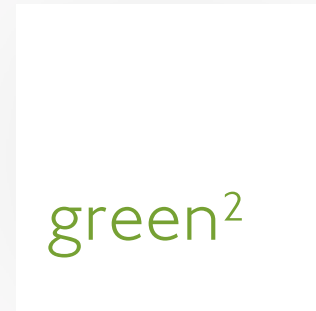
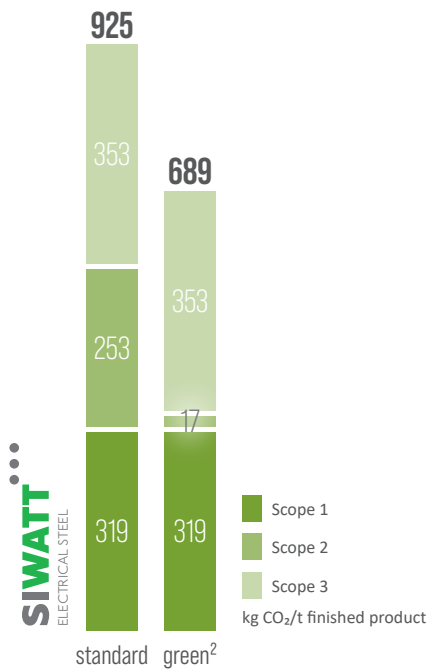
PRODUCTION PROCESS



Approvals, standards and certificates

Scan • Click





Recycled content

Green² steel is made from recycled steel scrap, without the use of iron ore.

100 % renewable electricity

Green² steel is made with 100 % renewable electricity.

Single site production

Green² steel is produced entirely in one location avoiding unnecessary emissions from transporting semi-finished products.

SIJ Acroni is the largest steel producer in Slovenia, specializing in producing hot- and cold-rolled flat steel products. We are among the leading European producers of stainless-steel quarto plates and one of the most important producers of tool, electrical, wear-resistant and high-strength structural steels. SIJ Acroni guarantees a constant level of quality by focusing on continuous development and improvement of processes and materials. We are certified according to IATF 16949, ISO 9001, ISO 14001, ISO 45001, ISO 50001, EN ISO/IEC 17025 and ResponsibleSteel. SIJ Acroni is a member of the vertically integrated group SIJ – Slovenian Steel Group.

Living Circular Economy

We value flexibility and sustainability, which is why we make small batches of high-quality steel products with high added value and a low CO₂ footprint for niche markets. SIJ Acroni is proud to have one of the lowest carbon footprints in the industry.

- 100% of our steel is made from recycled steel scrap in an electric arc furnace. We use magnetic separation to purify and increase the quality of scrap. This helps us reduce our environmental impact and increase the quality of the final product.
- 98% of waste generated during our production process, such as steel scrap and slag, is recycled or otherwise reused.

