

Acciaieria**Arvedi**



ArvtechTM

Hot rolled *ultrathin technological steel*

Arvedi



Acciaieria Arvedi, thanks to its production capacity of 4 million tonnes per year, is Italy's leading manufacturer of high strength hot rolled carbon steel coils in thin gauges.

The production process, based on the innovative **Arvedi ISP™** and **Arvedi ESP™** technologies, allows the liquid steel to be transformed into thin gauge coils in an extremely fast and environmentally sustainable cycle.

Arvtech™ is the trademark that identifies a special line of hot rolled thin gauge steels, with an exceptionally flat cross section and close tolerances that are unique in the world.

Gauges are available down to 1.0 mm and with close tolerances of up to +/- 0.04 mm depending on the resistance level.

ARVEDI TECHNOLOGY FOR HOT ROLLED COIL AS AN ALTERNATIVE TO COLD ROLLED

With **Arvedi ESP™** technology, in 190 m and about 5 minutes, the liquid steel is directly transformed into quality coils through an in-line and continuous cast-rolling process.

By exploiting the energy content of the liquid steel and its high plasticity at high temperatures, hot rolling to obtain thin gauge coils in a wide range of steel grades can be achieved.

Arvtech™ offers metallurgical characteristics and geometrical precision which make it an effective alternative to cold rolled products for many applications and with considerably shorter delivery times compared with a cold rolling cycle.



Scan to watch the Arvedi ESP™ process

Arvtech™



SHORTER DELIVERY TIMES, HIGHER YIELD, MAXIMUM CUSTOMIZATION

Arvtech™ brings together in a single product the widest range of benefits for the end user.

SHORTER DELIVERY TIMES

Production times are extremely fast. The whole process, from the raw material to the hot rolled coil, lasts about one hour, and just 5 minutes for casting and continuous rolling.

MATERIAL EASY TO PROCESS

The crystalline grain is very fine and with low levels of sulphides. The special liquid core reduction allows the absence of macrosegregations. For the customer, the material is easy to work and high yield.

HOMOGENEOUS QUALITY FOR HIGH YIELD

The continuous process maintains strip tension during rolling and cooling, avoiding the loss of flatness. Geometrical precision and mechanical characteristics are homogeneous throughout the length and cross-section of the strip.

CUSTOMIZATION FOR HIGHER YIELD

Close tolerances, combined with the possibility of rolling a customized nominal thickness, allow a longer coil to be generated, for the same weight, than one from a conventional cycle, allowing the user to minimize machine changes and increase yield.

CONSTANT QUALITY WITH EACH SUPPLY

Arvtech™ is obtained through a highly automated process and each phase is calibrated, ensuring constancy and repetitiveness of the material's properties.

A PRODUCT THAT TAKES CARE OF THE ENVIRONMENT

Arvtech™ is obtained using technology with a low impact on the environment: -50% water consumption and up to -75% CO₂ emissions compared with a conventional cycle. Over 95% of process waste is recycled and recovered. Savings in energy resources of up to -75% compared with a conventional cycle.

A RESPONSIBLE CHOICE

Arvtech™ fully represents a virtuous element in the framework of the circular economy.

Arvtech™ is obtained thanks to a patented production process and rigorous scrap selection which allow a considerable reduction in CO₂ emissions amounting to an intensity of 0.37 tonnes of CO₂-equivalent per tonne of steel produced.

Arvtech™ offers designers material with a low impact on the environment for the manufacture of wholly recyclable products.



PROVEN EFFICIENCY IN
MANY SECTORS

Automotive components, seating and safety systems
Construction and building components
Racking and shelving

Arvtech™

Acciaieria Arvedi supplies **Arvtech™** in a wide range of steel grades.
Maximum width available is **1520 mm**.

Type of steel	Arvtech™ designation	Standard designation	Thickness (mm)		Max Width [mm]
			min	max	
Mild steels UNI EN 0111	Arvtech™ DD11	DD11	1.0	3.5	1520
	Arvtech™ DD12	DD12	1.0	3.5	1520
	Arvtech™ DD13	DD13	1.5	3.5	1300
Structural steels UNI EN 10025-2 Delivery condition "as rolled" (+AR)	Arvtech™ S235JR/J0/J2	S235JR/J0/J2	1.0	3.5	1520
	Arvtech™ S275JR/J0/J2	S275JR/J0/J2	1.25	3.5	1520
	Arvtech™ S355JR/J0/J2	S355JR/J0/J2	1.8	3.5	1520
Weather-resistant structural steels UNI EN 10025-5 Delivery condition "as rolled" (+AR)	Arvtech™ S235J2W/J0W	S235J2W/J0W	1.45	3.5	1520
	Arvtech™ S355J2WP/J0WP	S355J2WP/J0WP	2.0	3.5	1520
Micro-alloyed steels UNI EN 10149-2	Arvtech™ S315MC	S315MC	1.25	3.5	1520
	Arvtech™ S355MC	S355MC	1.25	3.5	1520
	Arvtech™ S420MC	S420MC	1.38	3.5	1520
	Arvtech™ S460MC	S460MC	1.5	3.5	1520
	Arvtech™ S500MC	S500MC	1.5	3.5	1520
	Arvtech™ S550MC	S550MC	1.5	3.5	1520
	Arvtech™ S600MC	S600MC	2.0 ^(*)	3.5	1520
	Arvtech™ S650MC	S650MC	2.5	3.5	1300
	Arvtech™ S700MC	S700MC	2.5	3.5	1300
Multi-phase steels UNI EN 10338	Arvtech™ DP600	DP600	1.5	2.5	1520
	Arvtech™ FB590	FB590	1.8	3.5	1520
	Arvtech™ CP800	CP800 ^(**)	2.5	3.5	1520

Thickness range (mm)	Tolerance (mm) ^(*)	
0.80 < t ≤ 1.20	± 0.04	
1.21 < t ≤ 1.60	± 0.04	
1.61 < t ≤ 2.00	± 0.05	
2.01 < t ≤ 2.50	± 0.06	
2.51 < t ≤ 3.50	± 0.06	

^(*) The tolerance is not guaranteed from edge to 25mm for coils with untrimmed edges.

^(**) S600MC in thickness 2 mm and the grade CP800 are in development.

The grade DD11 to DD13, S315MC to S460MC, as well as S235JR/J0/J2 and S275JR/J0/J2 and S355JR/J0/J2 can be supplied with category A suitability for hot dip zinc coating. Category B or D is also available for the other steel grades.

Research and development activity is constantly directed at expanding the **Arvtech™** range.
For products currently not in the production programme please contact us at sales@ast.arvedi.it



Acciaieria Arvedi



Cremona production site



Trieste production site

Quality, environment and safety: our guiding concepts

The environmental and safety policy adopted by Acciaieria Arvedi is based on the recognition of the importance of protecting the environment, health and safety at work.

These principles are demonstrated by the environmental management and safety system certification in compliance with ISO 14001 and OHSAS 18001 protocols and are considered a fundamental part of the company's management system.

Quality management system in compliance with IATF 16949

Acciaieria Arvedi SpA

Via Acquaviva, 18
26100 Cremona / Italy
Tel. + 39 0372 478.1
Fax + 39 0372 478.283

e-mail: sales@ast.arvedi.it

www.arvedi.it

Arvtech
ultrathin steels

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