Industeel

ArcelorMittal

Mold, tool and die steels

Courtesy of Aceroa-Spain

Special steel plates and blocks producer

Industeel is a subsidiary of ArcelorMittal producing special steel hot rolled plates, forged blocks, ingots and formed pieces in **the world's widest dimensional range**

Specializing in carbon, low alloys, and stainless steels, Industeel offers a complete range of **high quality steel grades** designed to meet the most stringent specifications.

Thanks to its **3 integrated mills** located in Belgium and France, Industeel meets all customer requirements providing the widest dimensional range.

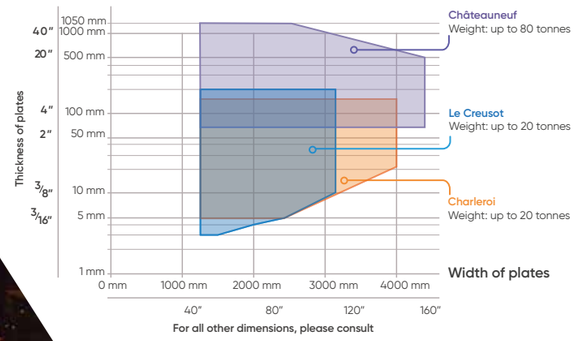
Tailor-made solutions adapted to your projects thanks to a rich metallurgical know-how.

◀Steel making

Hot rolling ▲

Continuous casting ▲

The widest dimensional range of plates



For all other dimensions, please consult

Our expertise

First class producer of high quality mold and tool steels

Careful selection of raw materials to produce **high purity steel** melted by electric arc furnace

Fine tuned secondary metallurgy, vacuum and special degassing processes **for high cleanliness steels** (AOD, VOD).

Thinnest plates produced through a modern **continuous casting** route **equipped with soft reduction process** to minimize the mid-thickness segregation
Heaviest plates produced through **ingot casting, hot rolling and hot forging** to offer very thick materials while guaranteeing very low segregation rates

Automatic quenching devices and high precision tempering furnaces create a **homogeneous hardness and microstructure** through the cross section

100% inspection of internal soundness by UT examination and hardness control

12 500T forging press for thick blocks ▲

Electric arc furnace ▲

Rolling mill ▲

UT control ▼

Alloyed mold steel

Industeel is offering a full range of pre-hardened alloy steel plates for both mechanical applications and mold tool and die industry.

Industeel	W.Nr	Chemical composition in %						Delivery condition	Manufacturing programm
		C	Ni	Cr	Mo	Mn	Other	Hardness HB	Thickness range mm
4140	W 1.7225	0.41	-	1.05	0.20	0.85	-	260-310	20-500
2311	W 1.2311	0.40	-	1.90	0.20	1.50	-	280-325	7-610
2312	W 1.2312	0.40	-	1.90	0.20	1.50	S:0.060	280-325	7-610
2738	W 1.2738	0.40	1.00	1.90	0.20	1.50	-	290-330	7-710
2738 Mod "E"	-	0.40	0.50	1.90	0.20	1.50	-	290-330	160-610
2738 Mod HH	W 1.2738 Mod HH	0.26	1.00	1.40	0.60	1.50	B	330-360	15-1050
2711	W 1.2711	0.55	1.70	0.70	0.30	0.70	V: 0.07	360-400	150-350
2714	W 1.2714	0.55	1.70	1.10	0.50	0.90	V: 0.1	360-400 370-415	8-350
2714+S	-	0.55	1.70	1.10	0.50	0.90	V.S	360-400	8-150

Superplast® brand

Our upgraded version of generic grades

More than 220 000 Tons sold

Grade	Hardness consistency	Machinability	Texturing	weldability	Thermal conductivity
Superplast® 300	★★★	★★★★	★★★	★★★★	★★★★
Superplast® 350	★★★	★★★	★★★	★★★★	★★★
Superplast® Premium	★★★★	★★★★	★★★★	★★★★	★★★
Superplast® 400	★★★	★★★	★★★	★★★	★★★
W 1.2738	★★	★★★	★★	★	★
W 1.2311	★	★★	★★	★	★
W 1.2714 W 1.2711	★	★★	★★	★	★

Provides to moldmakers and molders better polishability, machinability, through hardness homogeneity, faster cycle times, improved texturing, better conductivity, warranty

Industeel	W.Nr	Chemical composition in %						Delivery condition	Manufacturing programm
		C	Ni	Cr	Mo	Mn	Other	Hardness HB	Thickness range mm
Superplast®2311i	> W 1.2738E	0.38	0.50	1.90	0.20	1.40	B	280-320	150-710
Superplast® 300	> W 1.2738	0.26	0.30	1.40	0.45	1.40	B	290-330	8 -1050
Superplast® 350	> W 1.2738 Mod HH	0.26	0.30	1.60	0.65	1.50	B	330-370	8-1050
Superplast® 350 Premium	-	0.26	0.30	1.60	0.65	1.50	B	330-370	150-610
Superplast® 400	> W 1.2711-W 1.2714	0.25	0.75	2.00	0.60	1.15	B.V	350-380	7-610
Superplast® 400 Premium	-	0.25	0.75	2.00	0.60	1.15	B.V	350-380	150-610
Superplast® 450	-		Patent pending					410-460	20-250

Hot working steels

Hot working steels are widely used for cavity inserts, with high temperature, wearing plates, die casting molds and cavities

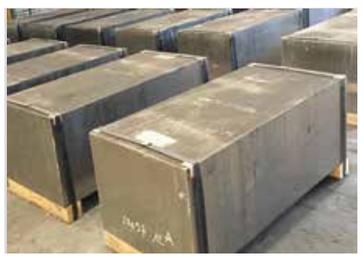
Industeel	AISI	Chemical composition in %						Delivery condition annealed	Manufacturing programm
		C	Ni	Cr	Mo	Mn	Other	Hardness HB	Thickness range mm
2343	H11	0.37	-	5.10	1.25	-	V: 0.35	< 230	11-350
2343 EFS	H11	0.38	-	5.00	1.30	0.30	V: 0.35	< 230	150-350
2344	H13	0.40	-	5.00	1.30	-	V: 1.00	< 230	15-350
MX01	-	0.19	1.00	2.00	0.80	1.50	B,V	360 -400	200-500

Cold working steels

Cold working steels are used for cavity insert in molds, punch and dies in press tool industry, backing plates and support plates for dies.

Industeel	AISI	Chemical composition in %						Delivery condition annealed	Manufacturing programm
		C	Ni	Cr	Mo	Mn	Other	Hardness HB	Thickness range mm
2510	01	0.95	-	0.50	-	1.20	W: 0.50	≤ 212	10-110
2842	02	0.90	-	0.50	-	2.00	-	≤ 210	10-110
2355	S7	0.50	-	3.30	1.35	0.7	-	≤ 225	9-220
2379	D2	1.55	-	11.75	0.75	0.35	V: 0.75	≤ 255	15-100
Tenasteel ®	-	1.00	-	7.50	2.60	0.35	Ti	≤ 250	10-75
2767		0.45	3.9	1.30	-	-	-	≤ 255	15-160
2363	A2	1	-	5.20	0.95	-	-	≤ 248	10-125

Plates in H11 for die casting mold



Frack pump blocks in 15-5 PH

Chirurgical mask mold in 2085

Stainless steels

Stainless steels are used in plastic molds for cavities and mould bases when corrosion is caused by the atmosphere or when resins injected are corrosive for steel.

Industeel	W.Nr	Chemical composition in %						Delivery condition	Manufacturing programm
		C	Ni	Cr	Mo	Mn	Other	Hardness HB	Thickness range mm
Superplast® Stainless	1.2099	0.07	0.50	12.0	-	1.4	S: 0.12	280-325	15 -310
2085	1.2085	0.33	-	16.0	-	1.1	S: 0.07	280-325	11-350
2316	1.2316	0.40	-	16.0	0.9	0.9	-	280-325	15-185
2083	1.2083	0.40	-	13.0	-	0.6	-	Annealed ≤ 241	15-140
17-4 PH 15-5 PH	-	0.035	4.50	15.5	-	-	Cu Nb	290-380	400-610

Mechanical engineering steels

Mechanical engineering steels are used in heavy mechanical industry such as pumps, fracking blocks, huge pressure blocks or big dies in forging industry.

Industeel	W.Nr	Chemical composition in %						Delivery condition	Manufacturing programm
		C	Ni	Cr	Mo	Mn	Other	Hardness HB	Thickness range mm
Mecasteel® 75		0.25	-	1.2 1.6	-	1.2 1.6	B S: 0.010	207-237	127-950
Mecasteel® 90		0.25	-	1.2 1.6	0.35 0.55	1.2 1.6	B S: 0.010	235-265	127-950
Mecasteel® 110		0.25	<0.5	1.4 1.8	0.60 0.80	1.3 1.7	B S: 0.007	290-320	127-810
Mecasteel® 145		0.25 0.30	3.00 3.50	1.0 1.5	0.60 0.90	0.5	B S: 1.010	350-380	127-610
Mecasteel® 17-4 Mecasteel® 15-5		0.035	4.50	15.5	-	-	Cu Nb	290-380	10-610
4130	1.7218	0.30	<0.23	1.0	0.17	0.525	Nb	≤ 260	20-600
4140	1.7225	0.41	<0.06	1.05	0.20	0.85	-	260-300	20-500
4340	≈1.6565	0.41	1.80	0.80	0.20	0.75	-	H+T 260-290 A ≤ 260	20-120
XC45	1.1730	0.45	-	-	-	0.70	-	180-220	10-200

You can download our updated datasheets from our website industeel.arcelormittal.com

ArcelorMittal

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