ArcelorMittal

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With 40 sales offices in 40 different countries around the world, Industeel stands as one of the foremost international steel makers, with an unmatched capacity of support everywhere around the world.

Your sales contact

transforming
tomorrow

All information in this brochure is for the purpose of information only.
Industeel reserves the right to change its product range at any time without prior notice.

Industeel marketing - January 2019

Mold, tool and die steels

Industeel
Special steel plates and blocks producer

Steel making

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.

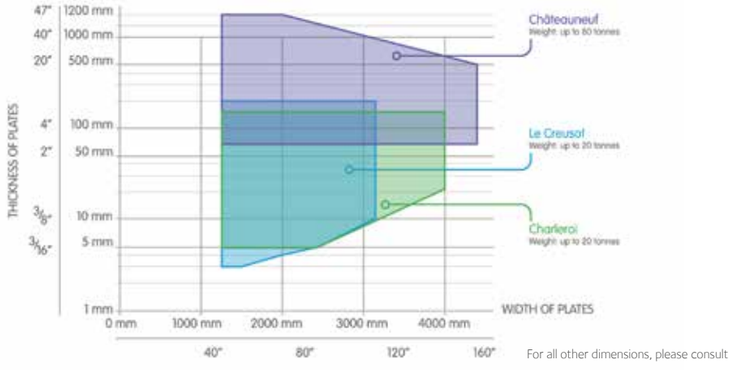
Thanks to its **3 integrated mills** located in Belgium and France, Industeel meets all customer requirements providing the widest dimensional range.

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

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

Electric arc furnace

Forging press for thick blocks

Rolling mill

Hardness control

A complete offer for mold and tool steels

Choose the best solution

- Standard grades
- Trademark grades
- Tailor-made grades

A dedicated research center

- High level technical support
- From steel manufacturing to end-user properties

Providing on-field technical assistance to help our customers in the use of our steel solutions

An integrated welding workshop with an expertise in welding metallurgy and welding processes

Cooperation with research institutes and organizations on processing operations machining, texturing, surface treatment

One R&D department is fully dedicated to the development and optimization of forging and heat treatment processes

Edition of Superplast® / Tenasteel® userguides with all technical informations and advices about the use of our trademark grades

Moulds cores and cavities

- Standard 2311, 2738, 2738HH, 2767, 2714, 2343
- Trademark Superplast® (SP300, SP350, SP400)
- Trademark Isotrop

Mould bases and hot runners

- Standard 2312, AISI 4140

GRADE	HARDNESS CONSISTENCY	MACHINABILITY	TEXTURING	REAR WELDABILITY	THERMAL CONDUCTIVITY
Superplast® 300	★★★	★★★★	★★★	★★★	★★★★
Superplast® 350	★★★	★★★	★★★	★★★	★★★
Superplast® Premium	★★★★	★★★★	★★★★	★★★	★★★
W 1.2738	★★	★★★	★★	★★	★
W 1.2311	★	★★	★★	★	★
Superplast® 400	★★★	★★★	★★★	★★★	★★★
W 1.2714	★	★★	★★	★	★
W 1.2343	★★	★★	★★	★★★	★

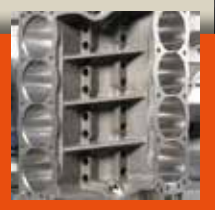
Stainless cores,cavities and extrusion dies

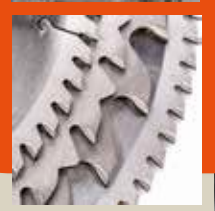
- Standard 2083, 2316

Mold bases and support plates

- Standard 2085
- Trademark Superplast Stainless (2099)

GRADE	HARDNESS CONSISTENCY	MACHINABILITY	TEXTURING	REAR WELDABILITY	THERMAL CONDUCTIVITY
Superplast® Stainless	★★★	★★★	★★★	★★★	★★★
W1.2085	★★	★★	★	★★	★★
W1.2083	★★	★	★★	★★	★★
W 1.2316	★★	★	★★★	★★	★★





Hot work tool steels

- Standard 2343, 2343EFS, 2714, 2347
- Trademark Isotrop

Cold-work tool steels

- Standard 2379, A2
- Trademark Tenasteel

GERMAN STANDARD	AMERICAN STANDARD	WEAR RESISTANCE	TOUGHNESS
W1.2363	A2	★★★	★★★★
W1.2379	D2	★★★★	★★
-	S7	★	★★★
W1.2510	O1	★★	★★★★★
Tenasteel®		★★★★	★★★

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MOLD STEELS

	INDUSTEEL	DIN	W.Nr	AISI	CHEMICAL COMPOSITION IN %						DELIVERY CONDITION		MANUFACTURING PROGRAMME		USAGE
					C	Ni	Cr	Mo	Mn	Others	Hardness HB	Hardness HRC	Thickness range mm	Width mm	
MOULDS CORES & CAVITIES	**Superplast® 300**		1.2738 mod	P20 mod	0.26	0.30	1.40	0.45	1.4	B	290-330	30-35	15-1200	1000-2500	Mechanical Engineering Cores and cavities with high requirements in homogeneity, surface finish, machining.
	Superplast® 350		1.2738 mod HH	P20 mod HH	0.26	0.30	1.60	0.65	1.5	B	330-360	35-39	15-900	1000-2500	
	Superplast® Premium				0.26	+	1.60 - 2.00	0.65	1.3	B	290-380	30-42	200-610	1000-2100	
	2738	40 CrMnNiMo 8-6-4	1.2738	P20 + Ni	0.40	1.00	1.90	0.20	1.5		280-325	29-34	7-610	1000-2500	
	2311	40 CrMnMo 7	1.2311	P20	0.40	-	1.90	0.20	-		280-325	29-34	7-610	1000-2500	
	Superplast® 400				0.25	0.75	2.00	0.60	1.15	B,V	350-380	38-42	15-610	1000-2500	
	2714	55 NiCrMoV 7	1.2714	L6	0.55	1.70	1.10	0.50	0.9	V	360-400	39-43	8-120	1000-2500	
	2343	X 38 Cr Mo V 5.1	1.2343	H11	0.39	-	5.15	1.25	-	-	<230	-	15-350	1000- 2100	
	2767	X45 NiCrMo4	1.2767	6F7	0.45	3.90	1.30	-	-		260	26.5	15-350	1000-3000	
MOULDS BASES & HOT RUNNERS	**4130**	30CrMo 4	1.7218	4130	0.30	-	1.00	0.16	-		258-302	26-32	7-135	1000-3500	Cores and cavities with basic requirements
	4140	42 CrMo 4	1.7225	4140	0.41	-	1.00	0.20	0.06	V		26-32	7-135	1000-3500	
	2312	40 CrMnMoS 8-6	1.2312	P-20 +S	0.40	-	1.90	0.20	1.5	S: 0.06	280-325	29-34	7-610	1000-2500	
	2714+S	55 NiCrMoV 7			0.55	1.70	1.10	0.50	0.9	V,S:0.07	360-400	39-43	8-120	1000-2500	
COROSION- RESISTANT MOULDS	**Superplast®Stainless**		1.2099		0.07	0.50	12.00	-	1.4	S: 0.12	290- 330	30-35	15-350	1000-2000	Corrosion- resistant holders and support plates
	2085	x 33 CrS 16	1.2085	420F mod	0.33	-	16.00	-	1.1	S: 0.07	280-325	29-34	15-350	1000-3500	
	2316+S			420 F mod	0.40	-	16.00	1.03	0.9	S: 0.07	280-325	29-34	15-300	1000-2500	
	2316	x 36 CrMo 17	1.2316		0.40	-	16.00	1.03	0.9		280- 325	29-34	15-225	1000 -3500	Stainless cores and cavities
	2083	x 42 Cr 13	1.2083	420	0.40	-	13.00	-	0.6		280-310	29-33	15-130	1000-3500	

TOOL STEELS

	INDUSTEEL	DIN	W.Nr	AISI	JIS	CHEMICAL COMPOSITION IN %							DELIVERY CONDITION	MANUFACTURING PROGRAMME		USAGE
						C	S	Ni	Cr	Mo	V	Other	Hardness HB	Thickness range mm	Width mm	
COLD WORK TOOL STEELS	**2510**	100 Mn Cr W 4	1.2510	01	-	0.90	0.001	-	0.55	-	0.10	W	<212	10-160	1000-3000	
	2842	90 Mn Cr V8	1.2842	02	-	090	0.001	-	0.55	-	0.10	-	<210	10-160	1000-3000	
	2355	50CrMoV13-15	1.2355	S 7	-	0.50	0.001	-	3.25	1.35	0.20	-	<225	10-200	1000-2600	High toughness, low to medium wear resistance for shear blades and stamping tools (mild steels and medium thicknesses)
	2363	X 100CrMo V5.1	1.2363	A 2	SKD12	1.00	0.001	-	5.20	0.95	0.20	-	<240	10-120	1000-2600	
	2379	X 153CrMo V12	1.2379	D 2	SKD 11	1.55	0.001	-	11.75	0.75	0.75	-	<255	15-100	1000-2000	High wear resistance with limited toughness and chipping resis- tance. Shear blades, stamping processing of tools (except high strength steels)
	Tenasteel®	® Registred trademark Patented product				1.00	0.001	-	7.50	2.60	0.30	Ti	<255	8-350	500-2100	Combining high wear and high chipping resistance. Stamping tools, shear knives to process high strength steels and high thicknesses
HOT WORK TOOL STEELS	**2767**	X 45 Ni Cr Mo 4	1.2767	-	-	0.45	0.001	3.90	1.30	-	-	-	<260	15-350	1000-3000	High toughness - Medium softening resistance - Forging tools
	2343	X 38 Cr Mo V 5.1	1.2343	H 11	SKD 6	0.39	0.001	-	5.15	1.25	0.35	-	<230	15-350	1000-2100	Good softening resistance for forging dies and dies casting dies (short series)
	2347		1.2347	-	-	0.40	0.10	-	5.25	1.40	0.95	Si : 1	350 - 385	13-75	2000	
	Isotrop	~ X 38 Cr Mo V 5.1	1.2343 mod	H 11 mod	~SKD 6	0.36	0.001	-	5.10	1.4	0.35	Si= 0.30	<230	100-360	1000-2100	Improved grades for die casting dies and forging. High toughness,high heat checking resistance NADCA approved material
	2714	55 Ni Cr Mo V 7	1.2714	-	SKT4	0.55	0.001	1.70	1.10	0.50	0.10	-	360-400	15-120	1000-2000	Holder blocks and dies for closed die forging
	MX01	-	-	-	-	0.19	0.001	1.00	2.00	0.80	0.20	B	360-400	200-500	2000	Forging dies for closed die forging with improved life performance

Other properties can be studied by the mill on request. Industeel reserves the right to modify above data.

Marketing Special Steels - 01.2019

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