

TOOL STEELS - PLASTIC MOULDING STEEL SOLUTIONS

	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		Width		
													mm	inches	mm	inches	
MOULDS CORES & CAVITIES	4140	42 CrMo 4	1.7225	4140	0.41	-	1.00	0.20	0.06	V	258-302	26-32	7-135	0.27-5.3	1000-3500	39.3-137.9	Mechanical Engineering Cores and cavities with high requirements in homogeneity, surface finish, machining.
	2311	40 CrMnMo 7	1.2311	P20	0.40	-	1.90	0.20	-		280-325	29-34	7-610	0.27-24.0	1000-2500	39.3-98.4	
	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	0.27-24.0	1000-2500	39.3-98.4	
	Superplast® 300		1.2738 mod	P20 mod	0.26	0.30	1.40	0.45	1.4	B	290-330	30-35	15-900	0.59-35.4	1000-2500	39.3-98.4	
	Superplast® 300 Premium		1.2738 mod	P20 mod	0.26	0.30	1.40	0.45	1.4	B	290-330	30-35	200-1210	7.87-47.6	1000-2500	39.3-98.4	
	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	0.59-35.4	1000-2500	39.3-98.4	
	Superplast® 350 Premium		1.2738 mod HH	P20 mod HH	0.26	0.30	1.60	0.65	1.5	B	330-360	35-39	200-1210	7.87-47.6	1000-2500	39.3-98.4	
	2714+S	55 NiCrMoV 7			0.55	1.70	1.10	0.50	0.9	V, S:0.07	360-400	39-43	8-320	0.31-12.6	1000-2500	39.3-98.4	
Superplast® 400				0.25	0.75	2.00	0.60	1.15	B,V	350-380	38-42	15-610	0.59-24.0	1000-2500	39.3-98.4		
MOULDS BASES & HOT RUNNERS	4130	30CrMo 4	1.7225	4130	0.30	-	1.00	0.16	-		258-302	26-32	7-135	0.27-5.3	1000-3500	39.3-137.9	Cores and cavities with basic requirements
	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	0.27-24.0	1000-2500	39.3-98.4	
	2714	55 NiCrMoV 7	1.2714		0.55	1.70	1.10	0.50	0.9	V	360-400	39-43	8-320	0.31-12.6	1000-2500	39.3-98.4	
CORROSION-RESISTANT MOULDS	2083	X 42 Cr 13	1.2083	420	0.40	-	13.00	-	0.6		280-310	29-33	15-130	0.59-5.1	1000-3500	39.3-137.9	Stainless cores and cavities
	2316	X 36 CrMo 17	1.2316		0.40	-	16.00	1.03	0.9		280-325	29-34	15-150	0.59-5.9	1000-3500	39.3-137.9	
	2085	X 33 CrS 16	1.2085	420F mod	0.33	-	16.00	-	1.1	S: 0.07	280-325	29-34	15-350	0.59-13.8	1000-3500	39.3-137.9	Corrosion-resistant holders and support plates
	2316+S			420F mod	0.40	-	16.00	1.03	0.9	S: 0.07	280-325	29-34	15-300	0.59-11.8	1000-2500	39.3-98.4	
	Superplast® Stainless		1.2099mod		0.07	0.50	12.00	-	1.4	S: 0.12	290-330	30-35	15-350	0.59-13.8	1000-2000	39.3-78.7	

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

Contact Marketing : +33 3 85 80 52 56
 Contact Sales : +33 4 77 75 21 29
 Fax : +33 3 85 80 55 00
<http://industeel.arcelormittal.com>

TOOL STEELS - COLD & HOT WORK TOOL STEELS

INDUSTEEL

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CHEMICAL COMPOSITION IN %

DELIVERY
CONDITION

MANUFACTURING PROGRAMME

USAGE

COLD WORK TOOL STEELS

HOT WORK TOOL STEELS

					C	S	Ni	Cr	Mo	V	Others	Hardness HB	Thickness range		Width		
													mm	inches	mm	inches	
	90 Mn Cr V 8	1.2842	02	-	0.90	0.001	-	0.35	-	0.10	-	<230	10-160	0.4-6.3	1000-3000	39.3-118.1	Stamping tools to process mild steels and low thicknesses general tool steel purpose
	100 Mn Cr W 4	1.2510	01	-	0.90	0.001	-	0.55	-	0.10	W	<212	10-160	0.4-6.3	1000-3000	39.3-118.1	
		-	A 6	-	0.70	0.001	-	1.10	1.00	-	-	<220	15-150	0.59-5.9	1000-2600	39.3-102.3	
		-	S 5	-	0.55	0.001	-	0.25	0.35	0.20	-	<230	15-110	0.59-4.3	1000-3000	39.3-118.1	Wood processing
		-	S 7	-	0.50	0.001	-	3.25	1.35	0.20	-	<225	10-200	0.4-7.9	1000-2600	39.3-102.3	High toughness, low to medium wear resistance for shear blades and stamping tools (mild steels and medium thicknesses)
	X 100CrMo V5.1	1.2363	A 2	SKD12	1.00	0.001	-	5.20	0.95	0.20	-	<240	10-120	0.4-4.7	1000-2600	39.3-102.3	
	X 153CrMo V12	1.2379	D 2	SKD 11	1.55	0.001	-	11.75	0.75	0.75	-	<255	15-100	0.59-3.9	1000-2000	39.3-78.7	High wear resistance with limited toughness and chipping resistance. Shear blades, stamping processing of tools (except high strength steels)
	X 210 Cr 12	1.2080	D 3	SKD 1	2.00	0.001	-	12.25	-	-	-	<248	15-100	0.59-3.9	1000-2000	39.3-78.7	
	X 210 Cr W12	1.2436	D 6	-	2.10	0.001	-	11.50	-	-	W=0.70	<255	15-100	0.59-3.9	1000-2000	39.3-78.7	
Tenasteel®	® Registered trademark Patented product				1.00	0.001	-	7.50	2.60	0.30	Ti	<255	15-350	0.59-13.8	500-2100	19.7-82.7	Combining high wear and high chipping resistance. Stamping tools, shear knives to process high strength steels and high thicknesses
	X 45 Ni Cr Mo 4	1.2767	-	-	0.45	0.001	3.90	1.30	-	-	-	<260	15-350	0.59-13.8	1000-3000	39.3-82.7	High toughness - Medium softening resistance - Forging tools
	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	0.59-13.8	1000-2100	39.3-82.7	Good softening resistance for forging dies and dies casting dies (short series)
	X 40 Cr Mo V 5.1	1.2344	H 13	SKD 61	0.40	0.001	-	5.00	1.30	1.00	-	<230	15-350	0.59-13.8	1000-2100	39.3-82.7	
Isotrop	~ X 38 Cr Mo V 5.1	~1.2343	~H 11	~SKD 6	0.36	0.001	-	5.10	1.4	0.35	Si=0.30	<230	100-360	3.9-14.1	1000-2100	39.3-82.7	Improved grades for die casting dies and forging. High toughness, high heat checking resistance NADCA approved material
	55 Ni Cr Mo V 7	1.2714	-	SKT4	0.55	0.001	1.70	1.10	0.50	0.10	-	360-400	15-350	0.59-13.8	1000-2000	39.3-78.7	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	4-20	2000	78.7	Forging dies for closed die forging with improved life performance

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