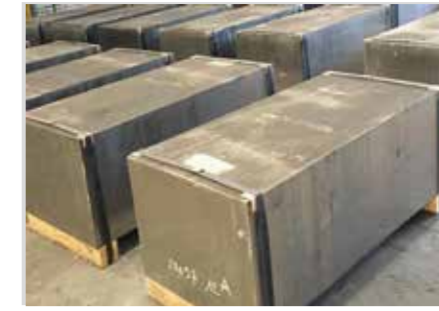


Mold tool and die steels program



	Industeel	EN	W.Nr	AISI	Chemical composition in %						Delivery condition		Manufacturing program	Usage	
					C	Ni	Cr	Mo	Mn	Other	Hardness HB	Hardness HRC	Thickness range mm		
Alloyed Mold Steel	Generic	4140	42 Cr Mo 4	W 1.7225	4140	0.41	-	1.05	0.20	0.85	-	260-310	24-31	20-500	Cores and cavities with basic requirements
		2311	40 Cr Mn Mo 7	W 1.2311	P20	0.40	-	1.90	0.20	1.50	-	280-325	27-33	7-610	Mechanical engineering cores and cavities with standard requirements in homogeneity, surface finish machining
		2312	40 Cr Mn Mo S 8-6	W 1.2312	41x40	0.40	-	1.90	0.20	1.50	S:0.060	280-325	27-33	7-610	Support plate for mold bases, bolster with sulfur for higher machinability. NOT suitable for cavities, polishing or texturing
		2738	40 Cr Mn Ni Mo 8-6-4	W 1.2738		0.40	1.00	1.90	0.20	1.50	-	290-330	29-34	7-710	Mechanical engineering cores and cavities with medium requirements in homogeneity, surface finish machining for thick blocks
		2738 Mod "E"	40 Cr Mn Ni Mo 8-6-2	-		0.40	0.50	1.90	0.20	1.50	-	290-330	29-34	160-610	Mechanical engineering cores and cavities with average requirements in homogeneity, surface finish machining for medium size blocks
		2738 Mod HH		W 1.2738 Mod HH		0.26	1.00	1.40	0.60	1.50	B	330-360	33-37	15-1050	Mechanical engineering cores and cavities with good requirements in homogeneity, surface finish machining for thick blocks with higher hardness
		2711	54 Ni Cr Mo V 6	W 1.2711		0.55	1.70	0.70	0.30	0.70	V: 0.07	360-400	37-41	150-350	40 HRC Pre heat-treated steel for engineering cores and cavities with rather high requirements in homogeneity, surface finish machining for molds
		2714	55 Ni Cr Mo V 7	W 1.2714		0.55	1.70	1.10	0.50	0.90	V: 0.1	360-400	37-43	8-350	40 HRC Pre heat-treated steel for plates with rather high requirements in homogeneity, heat resistance in forging applications
		2714+S		-		0.55	1.70	1.10	0.50	0.90	V.S	360-400	39-43	8-150	40 HRC Pre heat-treated steel for plates with rather high requirements in homogeneity, with sulfur for easier machinability
Superplast®	Superplast® 2311i		> W 1.2738E		0.38	0.50	1.90	0.20	1.40	B	280-320	27-32	150-710	Improved steel for mechanical engineering cores and cavities with high requirements in homogeneity, surface finish machining	
	Superplast® 300		> W 1.2738	P20 mod	0.26	0.30	1.40	0.45	1.40	B	290-330	29-34	8-1050	Improved steel for engineering cores and cavities with very high requirements in homogeneity, polishing, texturing, throughhardness homogeneity, polishing and texturing	
	Superplast® 350		> W 1.2738 Mod HH	P20 mod HH	0.26	0.30	1.60	0.65	1.50	B	330-370	33-38	8-1050	Improved steel for engineering cores and cavities with very high requirements in homogeneity, polishing and texturing with higher hardness	
	Superplast® 350 Premium		> W 1.2738 Mod HH	P20 mod HH	0.26	0.30	1.60	0.65	1.50	B	330-370	33-38	150-610	Mechanical engineering cores and cavities with high requirements in homogeneity, surface finish machining and very high polishing	
	Superplast® 400		> W 1.2711-W 1.214		0.25	0.75	2.00	0.60	1.15	B.V	350-380	36-38	7-610	40 HRC pre treated steel for improved engineering cores and cavities with high requirements in homogeneity, polishing and texturing	
	Superplast® 400 Premium		> W 1.2711-W 1.214		0.25	0.75	2.00	0.60	1.15	B.V	350-380	36-38	150-610	40 HRC pre treated steel for improved engineering cores and cavities with very high requirements in polishing and texturing	
	Superplast® 450	Registered trademark	Registered trademark	Registered trademark	Registered trademark						410-460	42-46	20-250	45HRC pre treated steel for improved engineering cores and cavities with very high requirements in hardness with a good polishing	
Hot Working Steels	2343	X 38 Cr Mo V 5.1	W 1.2343	H11	0.37	-	5.10	1.25	-	V: 0.35	< 230 Annealed	-	11-350	General purpose Hot Working steel for cavities in plastic molds, inserts, and die casting cavities	
	2343 EFS	X 37 Cr Mo V 5.1	W 1.2343	H11	0.38	-	5.00	1.30	0.30	V: 0.35	< 230 Annealed	-	150-350	General purpose Hot Working steel with finer control structure for cavities in plastic molds, in dies and, die casting cavities	
	2344	X 40 Cr Mo V 5.1	W 1.2344	H13	0.40	-	5.00	1.30	-	V: 1.00	< 230 Annealed	-	15-350	General purpose steel for cavities in plastic molds, in dies and, die casting cavities, wearing plates	
	MX01	-	-	-	0.19	1.00	2.00	0.80	1.50	B.V	360-400	37-41	200-500	Forging dies for closed die forging with improved life performance	
Stainless Steels	Superplast® Stainless		W 1.2099		0.07	0.50	12.0	-	1.4	S: 0.12	280-325	27-33	15-310	Stainless steel plate for mold bases, bolster with sulfur for higher machinability. NOT suitable for cavity, polishing or texturing	
	2085	X33 Cr S 16	W 1.2085	420F mod	0.33	-	16.0	-	1.1	S: 0.07	280-325	27-33	11-350	General purpose Stainless steel plate for mold bases, bolster. NOT suitable for cavity, polishing or texturing	
	2316	X36 Cr Mo 17	W 1.2316		0.40	-	16.0	0.9	0.9	-	280-325	27-33	15-185	General purpose Stainless steel plate for mold bases, bolster in PVC applications. NOT suitable for cavity, polishing or texturing	
	2083	X 42 Cr 13	W 1.2083	420	0.40	-	13.0	-	0.6	-	Annealed ≤ 241	-	15-140	General purpose stainless steel for cavities in plastic molds, inserts, and extrusion dies	
17-4 PH 15-5 PH	-	-	17-4 PH 15-5 PH	0.035	4.50	15.5	-	-	Cu Nb	290-380	30-38	400-610	General purpose pre-hardened stainless steel for cavities in case of very thick blocks with a good compromise against corrosion and wearing		
Cold Working Steels	2510	100 Mn Cr W 4	W 1.2510	01	0.95	-	0.50	-	1.20	W: 0.50	≤ 212 Annealed	-	10-110	General purpose Cold Working steel for stamping dies and backing plates	
	2842	90 Mn Cr V 8	W 1.2842	02	0.90	-	0.50	-	2.00	-	≤ 210 Annealed	-	10-110	General purpose Cold Working steel for stamping dies and backing plates	
	2355	50 Cr Mo V13-15	W 1.2355	S7	0.50	-	3.30	1.35	0.7	-	≤ 225 Annealed	-	9-220	High toughness, low to medium wear resistance for shear blades and stamping tools (mild steels and medium thicknesses)	
	2379	X 153 Cr Mo V12	W 1.2379	D2	1.55	-	11.75	0.75	0.35	V: 0.75	≤ 255 Annealed	-	15-100	High wear resistance with limited toughness and chipping resistance. Shear blades, stamping processing of tools (except high strength steels)	
	Tenasteel®	*Registered Trademark Patented product			1.00	-	7.50	2.60	0.35	Ti	≤ 250 Annealed	-	10-75	Combining high wear and high chipping resistance. Stamping tools, shear knives to process high strength steels and high thicknesses	
	2767	X 153 Cr Mo V12	W 1.2767		0.45	3.9	1.30	-	-	-	≤ 255 Annealed	-	15-160	High toughness - Medium softening resistance - Plastic moulds cavities, Forging tools	
	2363	X 100 Cr Mo V5.1	W 1.2363	A2	1	-	5.20	0.95	-	-	≤ 248 Annealed	-	10-125	High toughness, low to medium wear resistance for shear blades and stamping tools (mild steels and medium thicknesses)	
Mechanical engineering steels	Mecasteel® 75				0.25	-	1.2 1.6	-	1.2 1.6	B S: 0.010	207-237	18-20	127-950	General purpose 20HRC pre-hardened steel for heavy mechanical application	
	Mecasteel® 90				0.25	-	1.2 1.6	0.35 0.55	1.2 1.6	B S: 0.010	235-265	20-24	127-950	General purpose 24 HRC pre-hardened steel for heavy mechanical application	
	Mecasteel® 110				0.25	<0.5	1.4 1.8	0.60 0.80	1.3 1.7	B S: 0.007	290-320	29-32	127-810	General purpose 30 HRC pre-hardened steel for heavy mechanical application	
	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	36-38	127-610	General purpose 36 HRC pre-hardened steel for heavy mechanical application	
	Mecasteel® 17-4 Mecasteel® 15-5			17-4PH 15-5 PH	0.035	4.50	15.5	-	-	Cu Nb	290-380	29-38	10-610	General purpose 30-36 HRC pre-hardened stainless steel for heavy mechanical, off shore, frackpumps, pumps applications	
	4130	30 Cr Mo 4	1.7218		0.30	<0.23	1.0	0.17	0.525	Nb	≤ 260	Annealed	20-600	Cores and cavities with basic requirement	
	4140	42 Cr Mo 4	1.7225		0.41	<0.06	1.05	0.20	0.85	-	260-300	24-30	20-500	Pre Hardened steel for mechanical applications	
	4340		≈1.6565		0.41	1.80	0.80	0.20	0.75	-	260-290	24-30	20-120	Pre Hardened steel for mechanical applications	
	XC45	C45+N	1.1730		0.45	-	-	-	0.70	-	180-220	-	10-200	General carbon steel for mechanical applications and mold plates	

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