

Imported Mold Steel Brand Cross-Reference to AISI Grades

The brand grades of the main European and Japanese mold steel mills mapped to the AISI equivalent printed for them, with the mill grade code and the delivery hardness. Cold work, hot work, plastic mold and high speed grades. Read from the searchable text layer of a Chinese die material reference and checked group by group against the printed pages. Reference data only, not an Aobo Steel specification.

Reference only. This sheet is a reference summary of published mill practice, not an Aobo Steel specification or a supply condition. Confirm the grade and the delivery condition against the mill certificate before an order is placed against a brand code.

Cold work mold steel brands

AISI equivalent	Mill / brand	Grade code	Delivery hardness
O1 (JIS SKS3, GB/YB 9CrWMn)	ASSAB	DF-2	190
O1 (JIS SKS3, GB/YB 9CrWMn)	ASSAB	DF-3	190
O1 (JIS SKS3, GB/YB 9CrWMn)	BOHLER	K460	≤225
O1 (JIS SKS3, GB/YB 9CrWMn)	DORRENBURG	RS2510	230
O1 (JIS SKS3, GB/YB 9CrWMn)	DAIDO	GOA	217
O1 (JIS SKS3, GB/YB 9CrWMn)	HITACHI	SGT	190
O1 (JIS SKS3, GB/YB 9CrWMn)	SAARSTAHL	GS2510	230
O1 (JIS SKS3, GB/YB 9CrWMn)	THYSSEN	GS-510	≤230
O2 (GB 9Mn2V)	THYSSEN	GS842	≤230
A2 (JIS SKD12, GB Cr5Mo1V)	ASSAB	XW-10	215
A2 (JIS SKD12, GB Cr5Mo1V)	THYSSEN	GS-363	≤230
D2 (JIS SKD10, GB/YB Cr12Mo1V1)	ASSAB	XW-41	210
D2 (JIS SKD10, GB/YB Cr12Mo1V1)	ASSAB	XW-42	210
D2 (JIS SKD10, GB/YB Cr12Mo1V1)	BOHLER	K100	≤250
D2 (JIS SKD10, GB/YB Cr12Mo1V1)	DAIDO	DC11	255
D2 (JIS SKD10, GB/YB Cr12Mo1V1)	DAIDO	DC53	255
D2 (JIS SKD10, GB/YB Cr12Mo1V1)	DORRENBURG	RS2379	≤250
D2 (JIS SKD10, GB/YB Cr12Mo1V1)	DORRENBURG	RS2436	≤250
D2 (JIS SKD10, GB/YB Cr12Mo1V1)	HITACHI	SLD	210
D2 (JIS SKD10, GB/YB Cr12Mo1V1)	HITACHI	SLD8	210
D2 (JIS SKD10, GB/YB Cr12Mo1V1)	SAARSTAHL	GS2379	255
D2 (JIS SKD10, GB/YB Cr12Mo1V1)	THYSSEN	GS-379	≤250
D2 (JIS SKD10, GB/YB Cr12Mo1V1)	THYSSEN	GS-821ESR	≤250
D2 (JIS SKD10, GB/YB Cr12Mo1V1)	NKS	KD21	255
D2 (JIS SKD10, GB/YB Cr12Mo1V1)	NKS	KD11S	255
D3 (JIS SKD1, GB Cr12)	BOHLER	K110	≤250
D3 (JIS SKD1, GB Cr12)	THYSSEN	GS-080	≤250
D6	ASSAB	XW-5	240
D6	BOHLER	K107	≤250
D6	THYSSEN	GS-436	≤250
6F7	THYSSEN	GS-767	≤250

Table 10-11, printed pages 630 to 632.

Imported mold steel brands, continuation

Hot work mold steel brands

AISI equivalent	Mill / brand	Grade code	Delivery hardness
H10 (GB 4Cr3Mo3SiV)	THYSSEN	GS-365	≤230
H10A	BOHLER	W321	≤230
No AISI equivalent	THYSSEN	GS-885	≤230
H11 (GB 4Cr5MoSiV)	ASSAB	VD11	180
H11 (GB 4Cr5MoSiV)	BOHLER	W300VMR	≤220
H11 (GB 4Cr5MoSiV)	THYSSEN	GS-343	≤230
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	ASSAB	8402	185
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	ASSAB	8407ESR	185
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	BOHLER	W302	≤225
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	DAIDO	DHA1 (HI)	annealed 229
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	EDEL	2344	210
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	HITACHI	DAC	186
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	SAARSTAHL	GS-2344	180-220
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	SAARSTAHL	GS-2344 S.ESR	180-220
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	DORRENBURG	RS2344	≤230
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	DORRENBURG	RS2344ESR	≤230
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	THYSSEN	GS-344	≤230
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	THYSSEN	GS-344ESR	≤230
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	THYSSEN	GS-344HT	≤170
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	THYSSEN	GS344 RTSuper	≤170
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	THYSSEN	GS-344M	≤230
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	THYSSEN	GS344 RTSuper	≤230
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	ASSAB	HOTVAR	210
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	ASSAB	QRO-90	180
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	ASSAB	DIEVAR	160
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	BOHLER	W303ISO BLOC	≤229
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	BOHLER	W720ISO BLOC	annealed
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	DAIDO	DH2F	pre-hardened 37- 41HRC
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	DAIDO	DH31-S	annealed ≤235 HBW
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	THYSSEN	GS787 ESR	≤245
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	THYSSEN	GS999	≤230
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	NKS	KDA1	229
H13 (JIS SKD61, GB/YB 4Cr5MoSiV1)	NKS	KDA1S	229

Table 10-12, printed pages 632 to 634.

Imported mold steel brands, continuation

Plastic mold steel brands

AISI equivalent	Mill / brand	Grade code	Delivery hardness
6F3	THYSSEN	GS714	32-36HRC
P2	THYSSEN	GS-162	≤210
P20 (GB SM3Cr2Mo)	ASSAB	ASSAB618	290-330
P20 (GB SM3Cr2Mo)	ASSAB	718S	290-330
P20 (GB SM3Cr2Mo)	ASSAB	718H	330-370
P20 (GB SM3Cr2Mo)	BOHLER	M201	pre-hardened
P20 (GB SM3Cr2Mo)	BOHLER	M202	pre-hardened
P20 (GB SM3Cr2Mo)	BOHLER	M238	pre-hardened
P20 (GB SM3Cr2Mo)	DORRENBURG	RS323	240-300
P20 (GB SM3Cr2Mo)	DAIDO	PDS-5	29-33HRC
P20 (GB SM3Cr2Mo)	DAIDO	PX88	pre-hardened 30- 33HRC
P20 (GB SM3Cr2Mo)	DAIDO	PX4	pre-hardened 30- 33HRC
P20 (GB SM3Cr2Mo)	DAIDO	PX5	pre-hardened 30- 33HRC
P20 (GB SM3Cr2Mo)	EDEL	318	29-34HRC
P20 (GB SM3Cr2Mo)	EDEL	2311	30-35HRC
P20 (GB SM3Cr2Mo)	HITACHI	HPM7	310-340
P20 (GB SM3Cr2Mo)	DORRENBURG	RS2738	300-350
P20 (GB SM3Cr2Mo)	DORRENBURG	RS2311	280-325
P20 (GB SM3Cr2Mo)	DORRENBURG	RS2312	280-325
P20 (GB SM3Cr2Mo)	DORRENBURG	RS638	250-280
P20 (GB SM3Cr2Mo)	SAARSTAHL	GS738	300-350
P20 (GB SM3Cr2Mo)	SAARSTAHL	GS2311	300-350
P20 (GB SM3Cr2Mo)	SAARSTAHL	GS2312	280-325
P20 (GB SM3Cr2Mo)	SAARSTAHL	GS638	270-300
P20 (GB SM3Cr2Mo)	SAARSTAHL	GS688	250-320
P20 (GB SM3Cr2Mo)	SOREL	CSM-2	31-34HRC
P20 (GB SM3Cr2Mo)	SOREL	P-20M	29-35HRC
P20 (GB SM3Cr2Mo)	THYSSEN	GS-P20M	28-32HRC
P20 (GB SM3Cr2Mo)	THYSSEN	GS-711	35-38HRC
P20 (GB SM3Cr2Mo)	THYSSEN	GS-738	32-35HRC
P20 (GB SM3Cr2Mo)	THYSSEN	GS-318	28-30HRC
P20 (GB SM3Cr2Mo)	THYSSEN	GS-312	29-33HRC
P20 (GB SM3Cr2Mo)	USINOR / INDUSTEEL	SP300	300
P21 (GB 25CrNi3MoAl)	DAIDO	NAK55 VESR	37-43HRC
P21 (GB 25CrNi3MoAl)	HITACHI	CENAI (ESR)	38-42HRC
P21 (GB 25CrNi3MoAl)	HITACHI	HPM50	36-41HRC
P21 (GB 25CrNi3MoAl)	THYSSEN	GS-808 VAR	38-42HRC
P21 (GB 25CrNi3MoAl)	USINOR / INDUSTEEL	SP400	37-41HRC
P21 (GB 25CrNi3MoAl)	NKS	KAP88	38-41HRC
P21 (GB 25CrNi3MoAl)	DORRENBURG	RS80	380-420
420 (JIS SUS420J2, GB/YB 30Gr13)	ASSAB	168RAM AX-S	340
420 (JIS SUS420J2, GB/YB 30Gr13)	ASSAB	CORRAX S336	32HRC
420 (JIS SUS420J2, GB/YB 30Gr13)	ASSAB	S136ESR	215
420 (JIS SUS420J2, GB/YB 30Gr13)	ASSAB	S136HESR	290-330
420 (JIS SUS420J2, GB/YB 30Gr13)	BOHLER	M300ESR	pre-hardened
420 (JIS SUS420J2, GB/YB 30Gr13)	BOHLER	M310ESR	≤225
420 (JIS SUS420J2, GB/YB 30Gr13)	BOHLER	M310HESR	pre-hardened
420 (JIS SUS420J2, GB/YB 30Gr13)	BOHLER	M330VMR	≤240
420 (JIS SUS420J2, GB/YB 30Gr13)	DORRENBURG	RS2316	235-250
420 (JIS SUS420J2, GB/YB 30Gr13)	DORRENBURG	RS2083	≤230
420 (JIS SUS420J2, GB/YB 30Gr13)	DORRENBURG	RS2083H	≤230
420 (JIS SUS420J2, GB/YB 30Gr13)	DORRENBURG	RS2316 ESR	260-310
420 (JIS SUS420J2, GB/YB 30Gr13)	DAIDO	440C	269
420 (JIS SUS420J2, GB/YB 30Gr13)	DAIDO	S-STAR ESR	30-34 HRC
420 (JIS SUS420J2, GB/YB 30Gr13)	EDEL	2316	235-250
420 (JIS SUS420J2, GB/YB 30Gr13)	EDEL	2316H	290-330
420 (JIS SUS420J2, GB/YB 30Gr13)	HITACHI	HPM38	285-320
420 (JIS SUS420J2, GB/YB 30Gr13)	SAARSTAHL	GS-2083	215-240
420 (JIS SUS420J2, GB/YB 30Gr13)	SAARSTAHL	GS-2083H	280-310
420 (JIS SUS420J2, GB/YB 30Gr13)	SAARSTAHL	GS-2316	260-310
420 (JIS SUS420J2, GB/YB 30Gr13)	THYSSEN	GS-083	≤230
420 (JIS SUS420J2, GB/YB 30Gr13)	THYSSEN	GS-083 ESR	≤230
420 (JIS SUS420J2, GB/YB 30Gr13)	THYSSEN	GS-083H	290-340

AISI equivalent	Mill / brand	Grade code	Delivery hardness
420 (JIS SUS420J2, GB/YB 30Gr13)	THYSSEN	GS-128H	38-42HRC
420 (JIS SUS420J2, GB/YB 30Gr13)	THYSSEN	GS083 VAR	≤230
420 (JIS SUS420J2, GB/YB 30Gr13)	THYSSEN	GS-316	28-32HRC
No AISI equivalent	ASSAB	635	200
No AISI equivalent	ASSAB	S336	32HRC
No AISI equivalent	ASSAB	OPTIMAX	200
No AISI equivalent	BOHLER	M340	≤260
No AISI equivalent	DORRENBURG	RS80	380-420
No AISI equivalent	DAIDO	PXZ	pre-hardened 27-34HRC
No AISI equivalent	HITACHI	HPM38	48-55HS
No AISI equivalent	SINTO	PORCERAX II	≤450 HV
No AISI equivalent	THYSSEN	GS-316	265-325
No AISI equivalent	THYSSEN	GS-316ESR	265-325
6F7	THYSSEN	GS-767	≤250
440	THYSSEN	GS361ESR	≤265

Table 10-13, printed pages 634 to 640.

Imported mold steel brands, continuation

High speed steel brands

AISI equivalent	Mill / brand	Grade code	Delivery hardness
M2 (JIS SKH51, GB/YB W6Mo5Cr4V2)	ASSAB	KM-2	260
M2 (JIS SKH51, GB/YB W6Mo5Cr4V2)	BOHLER	S600	240-300
M2 (JIS SKH51, GB/YB W6Mo5Cr4V2)	DAIDO	MH51	annealed ≤255
M2 (JIS SKH51, GB/YB W6Mo5Cr4V2)	THYSSEN	GS-388	≤250
M42 (JIS SKH59, GB W2Mo9Cr4VCo8)	BOHLER	S500	240-300
M42 (JIS SKH59, GB W2Mo9Cr4VCo8)	THYSSEN	GS-247	≤300

Table 10-14, printed page 640.

Notes on the data

The source prints the Chinese equivalent of the 420 grades as 30Gr13 and the form printed here is the standard designation 30Cr13. A few grades are printed more than once in the source, inside one table or in two tables: THYSSEN GS-083H appears twice in the 420 group with the same 290 to 340 HBW figure, the DAIDO NAK55 ESR entry appears twice in the P21 group with the same hardness, and THYSSEN GS-767 is listed in both the cold work and the plastic mold table because the mill markets it for both duties. Duplicate rows are shown once. No value was changed. Bare numbers in the hardness column are HBW, following the unit printed in the source column heading, and HRC, HS or HV is shown where the mill specifies a different scale.

Aobo Steel, tool steel supplier

We supply forged and rolled tool steel from Huangshi, China, in D2, D3, O1, A2, H10, H11, H13, 420, 440C and related grades, in round bar and plate, annealed and ready to machine.

Reference data for the grades and the heat treatment cycles of tool and die steels is collected for the buyers and process engineers who work with us.

Source, 实用模具材料与热处理速查手册, Tables 10-11 to 10-14, printed pages 630 to 640. Page, aobosteel.com/imported-mold-steel-brand-cross-reference/

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