

Case hardening steel

Grade	Standard	in AISI/ASTM comparable to	in JIS comparable to	Tensile strength R_m N/mm ²	Yield strength R_e N/mm ²	Elongation A_{80} %	Skin passed
C 10 E	EN 10132-2	1010	S 10 C	≤ 430	≤ 345	≥ 26	LC
C 15 E	EN 10132-2	1015	S 15 C	≤ 450	≤ 360	≥ 25	LC
16MnCr5	EN 10132-2	5115		≤ 550	≤ 420	≥ 21	LC

Heat treatable steel

Grade	Standard	in AISI/ASTM comparable to	in JIS comparable to	Tensile strength R_m N/mm ²	Yield strength R_{eH} N/mm ²	Elongation A_{80} %	Skin passed
C 22 E	EN 10132-3	1020	S 22 C	≤ 500	≤ 400	≥ 22	LC
C 35 E	EN 10132-3	1035	S 35 C	≤ 540	≤ 430	≥ 19	LC
C 45 E	EN 10132-3	1045	S 45 C	≤ 570	≤ 455	≥ 18	LC
C 55 E	EN 10132-3	1055	S 55 C	≤ 600	≤ 480	≥ 17	LC
C 60 E	EN 10132-3	1060	S 58 C	≤ 620	≤ 495	≥ 17	LC
42CrMo4	EN 10132-3	4140/42	SCM 440 H	≤ 620	≤ 480	≥ 15	LC

Spring steel

Grade	Standard	in AISI/ASTM comparable to	in JIS comparable to	Tensile strength R_m N/mm ²	Yield strength R_e N/mm ²	Elongation A_{80} %	Skin passed
C 67 S	EN 10132-4	1070	S 70 CM	≤ 640	≤ 510	≥ 16	LC
C 75 S	EN 10132-4	1078	S 75 CM	≤ 640	≤ 510	≥ 15	LC
C 100 S	EN 10132-4	1095		≤ 690	≤ 550	≥ 13	LC

Steel Service Center (extract)

Hot rolled steel

Micro-alloyed steels with higher yield strength

EN 10149	Material No.	in AISI/ASTM comparable to	in JIS comparable to	Tensile strength R_m N/mm ²	Yield strength R_{eH} N/mm ²	Elongation A_{80} % (up to 3.00 mm)
S 355 MC	1.0976	A715 Gr50	SPFH 540	430 – 550	≥ 355	≥ 19
S 420 MC	1.0980	A715 Gr60	SPFH 590	480 – 620	≥ 420	≥ 16
S 500 MC	1.0984	A715 Gr70		550 – 700	≥ 500	≥ 12
S 550 MC	1.0986	A715 Gr80		600 – 760	≥ 550	≥ 12

Surface finish

Unpickled, pickled and dry, pickled and oiled