

# Heavy Steel Plate Grades

Steels for steel construction: non-alloy structural steels					
Previous standard	Previous steel grade	Current steel grade	Current standard		
BS 4360	40 A, B	S 235 JR	BS EN 10025-2		
	40 C	S 235 J0			
	40 D	S 235 J2+N			
	43 A, B	S 275 JR			
	43 C	S 275 J0			
	43 D	S 275 J2 +N			
	50 A, B	S 355 JR			
	50 C	S 355 J0			
	50 D	S 355 J2 +N			
	50 D D	S 355 K2 +N			
	DIN 17100	St 33		S 185	DIN EN 10025-2
		St 37-2		S 235 JR	
		RSt 37-2		S 235 JR	
		RQSt 37-2		S 235 JRC	
		St 37-3		S 235 J2 +N	
QSt 37-3		S 235 J2C +N			
St 44-2		S 275 JR			
QSt 44-2		S 275 JRC			
St 44-3		S 275 J2 +N			
QSt 44-3		S 275 J2C +N			
St 52-3		S 355 J2 +N			
QSt 52-3		S 355 J2C +N			
St 50-2		E 295			
St 60-2		E 335			
St 70-2		E 360			
NBN A21101		AE 235 A, B	S 235 JR	NBN EN 10025-2	
		AE 235 C	S 235 J0		
		AE 235 D	S 235 J2 +N		
		AE 355 B	S 355 JR		
		AE 355 C	S 355 J0		
		AE 355 D, DD	S 355 K2 +N		
NF A35501	A 33	S 185	NF EN 10025-2		
	E 24-2 (NE)	S235 JR			
	E 24-3	S 235 J0			
	E 24-4	S 235 J2 +N			
	E 28-2	S 275 JR			
	E 28-3	S 275 J0			
	E 28-4	S 275 J2 +N			
	E 36-3	S 355 J2 +N			
	E 36-4	S 355 K2 +N			
	A 50-2	E 295			
	A 60-2	E 335			
	A 70-2	E 360			

Previous standard	Previous steel grade	Current steel grade	Current standard	
SS 14 ...	1312-00	S 235 JR	SS EN 10025-2	
	1412-00	S 275 JR		
	1414-01	S 275 J2 +N		
	2172-00	S 355 JR		
	2174-01	S 355 JR +N		
	UNI 7070	Fe 360 B (FN)		S 235 JR
	Fe 360 C	S 235 J0		
	Fe 360 D	S 235 J2 +N		
	Fe 430 B	S 275 JR		
	Fe 430 C	S 275 J0		
	Fe 430 D	S 275 J2 +N		
	Fe 510 B	S 355 JR		
	Fe 510 C	S 355 J0		
	Fe 510 D	S 355 J2 +N		
	Fe 510 DD	S 355 K2 +N		
EN 10025	S 185	S 185	EN 10025-2	
	S 235 JR	S 235 JR		
	S 235 JRC	S 235 JRC		
	S 235 JRG1	S 235 JR		
	S 235 JRG1C	S 235 JRC		
	S 235 JRG2	S 235 JR		
	S 235 JRG2C	S 235 JRC		
	S 235 J0	S 235 J0		
	S 235 J0C	S 235 J0C		
	S 235 J2G3	S 235 J2 +N		
	S 235 J2G3C	S 235 J2C +N		
	S 235 J2G4	S 235 J2		
	S 235 J2G4C	S 235 J2C		
	S 275 JR	S 275 JR		
	S 275 JRC	S 275 JRC		
	S 275 J0	S 275 J0		
	S 275 J0C	S 275 J0C		
	S 275 J2G3	S 275 J2 +N		
	S 275 J2G3C	S 275 J2C +N		
	S 275 J2G4	S 275 J2		
	S 275 J2G4C	S 275 J2C		
	S 355 JR	S 355 JR		
	S 355 JRC	S 355 JRC		
	S 355 J0	S 355 J0		
	S 355 J0C	S 355 J0C		
	S 355 J2G3	S 355 J2 +N		
	S 355 J2G3C	S 355 J2C +N		
	S 355 J2G4	S 355 J2		
	S 355 J2G4C	S 355 J2C		
	S 355 K2G3	S 355 K2 +N		
	S 355 K2G3C	S 355 K2C +N		
	S 355 K2G4	S 355 K2		
	S 355 K2G4C	S 355 K2C		

Previous standard	Previous steel grade	Current steel grade	Current standard
EN 10025	E 295	E 295	EN 10025-2
	E 335	E 335	
	E 360	E 360	

### Steels for steel construction: fine grain structural steels

Previous standard	Previous steel grade	Current steel grade	Current standard
BS 4360	40 EE, 43 EE	S 275 NL	BS EN 10025-3
	50 EE	S 355 NL	
	55 C	S 460 N	
DIN 17102	55 EE	S 460 NL	DIN EN 10025-3
	StE 255, StE 285	S 275 N	
	TStE 255, TStE 285, EStE 255, EStE 285	S 275 NL	
	StE 315	S 275 N or S 355 N	
	TStE 315, EStE 315	S 275 NL or S 355 NL	
	StE 355	S 355 N	
	TStE 355, EStE 355	S 355 NL	
	StE 380	S 355 N or S 420 N	
	TStE 380, EStE 380	S 355 NL or S 420 NL	
	StE 420	S 420 N	
	TStE 420, EStE 420	S 420 NL	
	NF A36201	StE 460	
TStE 460, EStE 460		S 460 NL	
E 355 R		S 355 N	
E 355 FP1, FP2		S 355 NL	
E 375 R		S 355 N or S 420 N	
E 375 FP1, FP2		S 355 NL or S 420 NL	
SS 14 ...	E 420 R	S 420 N	SS EN 10025-3
	E 420 FP1, FP2	S 420 NL	
	E 460 R	S 460 N	
	E 460 FP	S 460 NL	
SS 14 ...	2132-01, 2134-01	S 355 N	SS EN 10025-3
	2135-01	S 355 NL	
	2142-01, 2144-01	S 420 N	
	2145-01	S 420 NL	

### Steels for steel construction: structural steels with improved atmospheric corrosion resistance

Previous standard	Previous steel grade	Current steel grade	Current standard
BS 4360	WR 50 B, C	S 355 J2W +N	BS EN 10025-5
NF A35502	E 24 W2	S 235 J0W	NF EN 10025-5
	E 24 W3	S 235 J0W	
	E 24 W4	S 235 J2W +N	
SEW 087	E 36 WB3	S 355 J0W	DIN EN 10025-5
	E 36 WB4	S 355 K2W +N	
SEW 087	WTSt 37-2	S 235 J0W	DIN EN 10025-5

Previous standard	Previous steel grade	Current steel grade	Current standard
SEW 087	WTSt 37-3	S 235 J2W +N	DIN EN 10025-5
	WTSt 52-3	S 355 J2W +N	
EN 10155	S 235 J0W	S 235 J0W	EN 10025-5
	S 235 J2W	S 235 J2W +N	
	S 355 J0WP	S 355 J0WP	
	S 355 J2WP	S 355 J2WP +N	
	S 355 J0W	S 355 J0W	
	S 355 J2G1W	S 355 J2W +N	
	S 355 J2G2W	S 355 J2W	
	S 355 K2G1W	S 355 K2W +N	
	S 355 K2G2W	S 355 K2W	

#### Steels for steel construction: quenched and tempered structural steels

Previous standard	Previous steel grade	Current steel grade	Current standard
BS 4360	50 F, 55 F	S 460 QL1	BS EN 10025-6
NF A36204	E 460T-II-K2, ..., E 690-II-K2	S 460 QL, ... , S 690 QL	NF EN 10025-6
	E 460T-II-K4, ... , E 690-II-K4	S 460 QL1, ... , S 690 QL1	
	E 960T-II-K2	S 960 QL	
SEW 090	StE 690V, TStE 690V, EStE 690V	S 690Q, S 690QL, S 690QL1	DIN EN 10025-6

#### Steels for cold forming

Previous standard	Previous steel grade	Current steel grade	Current standard
SEW 092	QStE 340 M	S 355 MC	DIN EN 10149-2
	QStE 380 M	S 355 MC or S 420 MC	
	QStE 420 M	S 420 MC	
	QStE 460 M	S 460 MC	
	QStE 500 M	S 500 MC	
	QStE 550 M	S 550 MC	
	QStE 260 N	S 260 NC	DIN EN 10149-3
	QStE 340 N	S 355 NC	
	QStE 380 N	S 355 NC or S 420 NC	
	QStE 420 N	S 420 NC	

#### Steels for pressure vessel construction: non-alloy steels with elevated temperature properties

Previous standard	Previous steel grade	Current steel grade	Current standard
BS 1501 P1-151	360 A, B	P 235 GH	BS EN 10028-2
	400 A, B	P 265 GH	
	430 A, B	P 295 GH	
BS 1501 P1-161	360 A, B	P 235 GH	BS EN 10028-2
	400 A, B	P 265 GH	
	430 A, B	P 295 GH	
BS 1501 P1-164	360 A, B & RT... LT20	P 235 GH	BS EN 10028-2
	400 A, B & RT... LT20	P 265 GH	
DIN 17155	HI	P 235 GH	DIN EN 10028-2
	HI1	P 265 GH	
	17Mn4	P 295 GH	
	19Mn6	P 355 GH	
NF A36205	A 37 CP, AP	P 235 GH	NF EN 10028-2
	A 42 CP, AP	P 265 GH	
	A 48 CP, AP	P 295 GH	
	A 48 CPR, APR	P 295 GH or P 355 GH	
	A 52 CP, AP	P 355 GH	
	A 52 CPR, APR	P 355 GH	
SS 14 ...	1330-01, 1331-01	P 235 GH	SS EN 10028-2
	1430-01, 1431-01, 1432-01	P 265 GH	

Previous standard	Previous steel grade	Current steel grade	Current standard
SS 14 ...	2101-01, 2102-01, 2103-01	P 295 GH or P 355 GH	SS EN 10028-2
UNI 5869	Fe 360-1, -2 & KG, KW	P 235 GH	UNI EN 10028-2
	Fe 410-1, -2 & KG, KW	P 265 GH	
	Fe 460-1, -2 & KG, KW	P 295 GH	
	Fe 510-1, -2 & KG, KW	P 355 GH	

### Steels for pressure vessel construction: alloy steels with elevated temperature properties

Previous standard	Previous steel grade	Current steel grade	Current standard
BS 1501 P2	243 A, B	16 Mo 3	BS EN 10028-2
	620 A, B	13 CrMo 4-5	
	621 A, B	13 CrMoSi 5-5	
	622-515 A, B	10 CrMo 9-10	
DIN 17155	15 Mo 3	16 Mo 3	DIN EN 10028-2
	13 CrMo 4-4	13 CrMo 4-5	
	10 CrMo 9-10	10 CrMo 9-10	
NF A36206	15 D 3	16 Mo 3	NF EN 10028-2
	18 MD 4-05	18 MnMo 4-5	
	15 CD 4-05	13 CrMo 4-5	
	10 CD 9-10	10 CrMo 9-10	
UNI 5869	16 Mo 3	16 Mo 3	UNI EN 10028-2
	14 CrMo 4-5	13 CrMo 4-5	
	12 CrMo 9-10	10 CrMo 9-10	

### Steels for pressure vessel construction: fine grain steels

Previous standard	Previous steel grade	Current steel grade	Current standard
BS 1501 P1-223	460A ... 490A & RT ... LT15	P 355 N	BS EN 10028-3
	460A ... 490A & LT30	P 355 NL1	
	460B ... 490B & RT ... LT15	P 355 NH	
	460B ... 490B & LT30	P 355 NL1 & P 355 NH	
BS 1501 P1-224	400A & RT ... LT20	(P 275 N) no longer defined	BS EN 10028-3
	400A & LT30 ... LT40	P 275 NL1	
	400A & LT50	P 275 NL2	
	400B & RT ... LT20	P 275 NH	
	400B & LT30 ... LT40	P 275 NL1 & P 275 NH	
	400B & LT50	P 275 NL2 & P 275 NH	
	430A & RT ... LT20	(P 275 N) no longer defined or P 355 N	
	430A & LT30 ... LT40	P 275 NL1 or P 355 NL1	
	430A & LT50	P 275 NL2 or P 355 NL2	
	430B & RT ... LT20	P 275 NH or P 355 NH	
	430B & LT30 ... LT40	P 275 NL1 & P 275 NH or P 355 NL1 & P 355 NH	
	430B & LT50	P 275 NL2 & P 275 NH or P 355 NL2 & P 355 NH	
BS 1501 P1-225	460A ... 490A & RT ... LT20	P 355 N	BS EN 10028-3
	460A ... 490A & LT30 ... LT40	P 355 NL1	
	460A ... 490A & LT50	P 355 NL2	
	460B ... 490B & RT ... LT20	P 355 NH	
	460B ... 490B & LT30 ... LT40	P 355 NL1 & P 355 NH	
	460B ... 490B & LT50	P 355 NL2 & P 355 NH	
	460A ... 490A & LT20	P 355 N	
	460A ... 490A & LT30 ... LT40	P 355 NL1	
DIN 17102	StE 255, StE 285	(P 275 N) no longer defined	DIN EN 10028-3
	WStE 255, WStE 285	P 275 NH	

Previous standard	Previous steel grade	Current steel grade	Current standard
DIN 17102	TStE 255, TStE 285	P 275 NL1	DIN EN 10028-3
	ESTe 255, ESTe 285	P 275 NL2	
	StE 315	(P 275 N) no longer defined or P 355 N	
	WStE 315	P 275 NH or P 355 NH	
	TStE 315	P 275 NL1 or P 355 NL1	
	ESTe 315	P 275 NL2 or P 355 NL2	
	StE 355	P 355 N	
	WStE 355	P 355 NH	
	TStE 355	P 355 NL1	
	ESTe 355	P 355 NL2	
	StE 380, StE 420	P 355 N or P 460 N	
	WStE 380, WStE 420	P 355 NH or P 460 NH	
	TStE 380, TStE 420	P 355 NL1 or P 460 NL1	
	ESTe 380, ESTe 420	P 355 NL2 or P 460 NL2	
	StE 460	(P 460 N) no longer defined	
	WStE 460	P 460 NH	
	TStE 460	P 460 NL1	
	ESTe 460	P 460 NL2	
NF A36205	A 37 FP	P 275 NL1	NF EN 10028-3
	A 42 FP	P 275 NL1	
	A 48 FP	P 275 NL1 or P 355 NL1	
	A 48 FPR	P 275 NL1 or P 355 NL1	
	A 52 FP	P 355 NL1	
	A 52 FPR	P 355 NL1	

#### Steels for pressure vessel construction: ni-alloy steels with low-temperature properties

Previous standard	Previous steel grade	Current steel grade	Current standard
BS 1501 P2	503	12 Ni 14	BS EN 10028-4
	510	X 8 Ni 9 +QT680	
DIN 17280	11 MnNi 5-3	11 MnNi 5-3	DIN EN 10028-4
	13 MnNi 6-3	13 MnNi 6-3	
	10 Ni 14	12 Ni 14	
	12 Ni 19	X 12 Ni 5	
	X 8 Ni 9	X 8 Ni 9 +NT640, +QT640	
NF A36208	0,5Ni 285	11 MnNi 5-3	NF EN 10028-4
	0,5Ni 355	13 MnNi 6-3	
	3,5Ni 285	12 Ni 14	
	3,5Ni 355	12 Ni 14	
	5Ni 390	X 12 Ni 5	
	9Ni 490	X 8 Ni 9 +NT640, +QT640	
	9Ni 585	X 8 Ni 9 +QT680	

#### Steels for quenching and tempering: non-alloy steels for quenching and tempering

Previous standard	Previous steel grade	Current steel grade	Current standard
DIN 17200	C 22 N, ... , C 60 N	C35 +N, ... , C60 +N	DIN EN 10083-2
	C 22 U, ... , C 60 U	C35 +U, ... , C60 +U	
	Ck 22 N, ... , Ck 60 N	C22E +N, ... , C60E +N	
	Ck 22 U, ... , Ck 60 U	C22E +U, ... , C60E +U	
NF A35554	XC 18 S	C22E +N	NF EN 10083-2
	XC 38	C40E +N	
	XC 48	C50E +N	

**Steels for quenching and tempering: alloy steels for quenching and tempering**

Previous standard	Previous steel grade	Current steel grade	Current standard
DIN 17200	25 CrMo 4 (N), ... , 50 CrMo 4 (N)	25 CrMo 4 , ... , 50 CrMo 4	DIN EN 10083-3
	50 CrV 4 (N)	50 CrV 4	
NF A35554	25 CD 4S	25 CrMo 4	NF EN 10083-1

**Steels for case-hardening: non-alloy steels for case-hardening**

Previous standard	Previous steel grade	Current steel grade	Current standard
DIN 17210	C 10 N, Ck 10 N	C10E +N	DIN EN 10084
	C 10 U, Ck 10 U	C10E +U	
	C 15 N, Ck 15 N	C15E +N	
	C 15 U, Ck 15 U	C15E +U	
NF A35554	XC 10	C10E +N	NF EN 10084

**Steels for case-hardening: alloy steels for case-hardening**

Previous standard	Previous steel grade	Current steel grade	Current standard
DIN 17210	16 MnCr 5 (N), 20 MnCr 5 (N)	16 MnCr 5(+N), 20 MnCr (+N)	DIN EN 10084

**Steels for offshore structures**

Previous standard	Previous steel grade	Current steel grade	Current standard
BS 7191	355 D	S 355 G2+N	BS EN 10225
	355 E	S 355 G3+N	
	355 EM	S 355 G7+N	
	355 EMZ	S 355 G8+N	
	450 EM	S 460 G1+QT	
	450 EMZ	S 460 G2+QT	

**Steels for line pipe**

Previous standard	Previous steel grade	Current steel grade	Current standard
DIN 17172	StE 210-7, StE 240-7	L 245 NB	DIN EN 10208-2
	StE 290-7	L 290 NB	
	StE 320-7	L 290 NB or L 360 NB	
	StE 360-7	L 360 NB	
	StE 385-7	L 360 NB or L 415 NB	
	StE 415-7	L 415 NB	
	StE 290-7 TM	L 290 MB	
	StE 320-7 TM	L 290 MB or L 360 MB	
	StE 360-7 TM	L 360 MB	
	StE 385-7 TM	L 360 MB or L 415 MB	
	StE 415-7 TM	L 415 MB	
	StE 445-7 TM	L 450 MB	
	StE 480-7 TM	L 485 MB	
	StE 480-7 TM	L 485 MB	