

SPECIFICATION	CHEMICAL ANALYSIS						PROPERTIES			SIMILAR GRADES	MAX CSA	
	% C	% Si	% Mn	% P	% S	ALLOYS /OTHER ELEMENTS	Yield Re N/mm2 min.	Tensile Rm N/mm2 min.	Elong'n. A % min.			
MILD STEELS / STEELS FOR COLD FORMING										180°Bend mandrel size		
EN10111:DD11	0.12 max	0.040 max	0.60 max	0.045 max	0.045 max		170-340 (170 min)	440 max (280 min)	28 (25)	R=t D=2t	900mm2	
BS1449 Pt.1:HS4	0.12 max	0.040 max	0.60 max	0.050 max	0.050 max						900mm2	
BS1449 Pt.1:HS15	0.20 max	0.040 max	0.90 max	0.050 max	0.050 max		(170 min)	(280 min)	-	D=3t	900mm2	
STRUCTURAL STEELS EN10025										Impact Test 27J min at:-		
S235JR	0.17 max		1.40 max	0.040 max	0.040 max	See full specification	235	360-510	26	+20 °C	DIN 17100 St37-2	900mm2
S235J0	0.17 max		1.40 max	0.035 max	0.035 max	See full specification	235	360-510	26	0 °C		900mm2
S275JR	0.25 max		1.50 max	0.040 max	0.040 max	See full specification	275	410-560	22	+20 °C	BS4360 43A	900mm2
S275J0	0.25 max		1.50 max	0.035 max	0.035 max	See full specification	275	410-560	22	0 °C		900mm2
S355JR	0.24 max		1.60 max	0.040 max	0.040 max	See full specification	355	470-630	21	+20 °C	BS4360 50B	900mm2
S355J0	0.20- max		1.60 max	0.035 max	0.035 max	See full specification	355	470-630	21	0 °C	BS4360 50C	900mm2
S355J2	0.20 max		1.60 max	0.030 max	0.030 max	See full specification	355	470-630	21	-20 °C	BS4360 50D	900mm2
CARBON STEELS EN10083												
C35	0.32-0.39	0.040 max	0.50-0.80	0.035 max	0.040 max		300	550	18		C35E; C35R; E295; BS970 070M36; SAE1035	800mm2
C40	0.37-0.44	0.040 max	0.50-0.80	0.035 max	0.040 max		320	580	16		C40E; C40R; BS970 080M40; EN8; SAE1040	800mm2
C45	0.42-0.50	0.040 max	0.50-0.80	0.035 max	0.040 max		340	620	14		C45E; C45R; E335; BS970 080M46; SAE1045	800mm2
C55	0.52-0.60	0.040 max	0.60-0.90	0.035 max	0.040 max		370	680	11		C55E; C55R; E360; BS970 070M55; EN9; SAE1055	800mm2
C60	0.57-0.62	0.040 max	0.60-0.90	0.035 max	0.040 max		380	710	10		C60E; C60R; SAE1060	800mm2
BS970 Pt.1 150M36	0.32-0.40	0.040 max	1.30-1.70	0.050 max	0.050 max		385	620	14		Bromford BCS67	800mm2
BORON STEELS										Hardness		
Proprietary grades												
Bromford 20CCrB	0.18-0.23	0.040 max	0.85-1.05	0.030 max	0.030 max	Cr 0.20-0.25; B 0.001-0.005				(229 HB max)		800mm2
Bromford 30CCrB	0.28-0.33	0.15-0.35	1.00-1.40	0.025 max	0.035 max	Cr 0.30-0.60; B 0.001-0.005				(285 HB max)	(EN10083 27MnCrB5-2, 30MnCrB5-2)	800mm2
Bromford 43CMnB	0.40-0.45	0.15-0.35	1.30-1.50	0.030 max	0.015 max	Cr 0.15-0.30; B 0.002-0.005				(285 HB max)		750mm2
SPRING STEELS										Hardness		
(DIN17222) C75	0.75-0.80	0.15-0.35	0.60-0.80	0.040 max	0.040 max	-		(950-1100)				750mm2
BS970 Pt.2 251A58	0.55-0.60	1.80-2.10	0.80-1.00	0.035 max	0.035 max	Cr 0.15-0.30; Al 0.0150-0.045				321 HB max	BS970 070A78; BS1449 Pt.1 HS80 EN10089 56SiCr7; BS970:1955 EN45; SAE 9260	700mm2

Note. Data in (brackets) is for information only. For full definitive data always consult the original specification.

Specifications

We have a wide range of steels available enabling us to supply products to many International, European, and National specifications. The following grades are generally available to be rolled from stock. Other grades can be sourced with additional lead time - please ask.

Mild / formable steels including: -

EN10111 DD11; BS1449 HS4, BS1449 HS15

Structural steels including: -

EN10025: - S235JR, S235J0, S275JR, S275J0, S355JR, S355J0, S355J2
ASTM A36; ASTM A1011 SS36; JIS G3101 SS400

Medium and high carbon steels including: -

EN10083: - C35, C40, C45, C50, C60

BS970 Pt.1: - 150M36, 080M40, 080M46, 080M50, 070M55, 060A78

BS970:1955: - EN8, EN8D, EN9, EN43, EN42

BS1449: - HS40, HS50, HS60

SAE/AISI: - 1042, 1045, 1050, 1055, 1060, 1075

DIN17222 C75

Alloy Spring Steel including: -

BS970 Pt.2: 251A58; BS970 1955: EN45; SAE/AISI 9260

Boron steels including: -

EN10083: - 27MnCrB5-2, 30MnCrB5-2

Proprietary boron grades - 20CCrB, 30CCrB, 42CMnB