

★ Chemical Composition % max

Material grade	C	Si	Mn	P	S
* S45C	0.42-0.48	0.15-0.35	0.60-0.90	0.030	0.035
* S55C	0.52-0.58	0.15-0.35	0.60-0.90	0.030	0.035

★ Mechanical Properties

Material grade	Yield Strength	Tensile Strength	Elongation
* S45C	490 Mpa min	686 Mpa min	17% min
* S55C	588 Mpa min	785 Mpa min	14% min

* Base on material has quenched and tempered

★ Tolerances

Surface Finish	Surface Hardness	Straightness	Roundness	Plated Thickness
Ra 0.2 µm max	850 HV (0.1) minimum	0.3 : 1000mm on the total length of bar	½ of tolerance	<Ø 20mm, 15 µm min ≥Ø 20mm, 20 µm min

★ Corrosion Resistance

* S45C	24/48/72/96/120 Hours in NSS Rating 9 minimum
* S55C	24/48/72/96/120 Hours in NSS Rating 9 minimum

* NSS test according to ISO9227 with results evaluated according to SGS certification

* Customization for the product corrosion resistance in rating 9 up with 200 and 500 hours

★ Available Size Range

Stock Metric	Stock Imperial
sizes up to Ø 200mm	sizes up to Ø 7"+1/2"

★ We are also able to supply

- * Other steel grades & required specification available
- * Larger size and long length available upon request
- * Induction available
- * Chrome & Nickel plated hollow bar / solid bar

★ **Hard Chrome Bar Stock sizes (S45C)**

O.D mm	O.D inch	Weight Kg/m	Tolerance (ISO)
6.00		0.22	-0.010 /-0.028 (f8)
8.00		0.39	-0.013 /-0.035 (f8)
10.00		0.62	
12.00		0.89	-0.016 /-0.043 (f8)
12.70	½	1.00	
13.00		1.04	
14.00		1.21	
15.00		1.39	
15.88	¾	1.55	
16.00		1.58	
17.00		1.78	
18.00		2.00	
19.05	¾	2.24	-0.020 /-0.053 (f8)
20.00		2.47	
22.22	7/8	3.05	
22.40		3.10	
25.00		3.86	
25.40	1	3.98	
28.00		4.84	
28.57	1+½	5.04	
30.00		5.55	
31.50		6.12	-0.025 /-0.064 (f8)
31.75	1+¼	6.22	
32.00		6.32	
35.00	1+¾	7.56	
35.50		7.78	
36.00		8.00	
38.00		8.91	
38.10	1+½	8.96	
40.00		9.87	
44.45	1+¾	12.19	
45.00		12.49	
50.00		15.43	
50.80	2	15.92	-0.030 /-0.076 (f8)
55.00		18.66	
56.00		19.35	
57.15	2+¼	20.15	
60.00		22.21	
63.00		24.49	
63.50	2+½	24.88	
65.00		26.07	
70.00		30.23	
71.00		31.10	
75.00		34.71	
76.20	3	35.83	

★ Hard Chrome Bar Stock sizes (S45C)

O.D mm	O.D inch	Weight Kg/m	Tolerance (ISO)
80.00		39.49	-0.030 /-0.076 (f8)
85.00		44.58	-0.036 /-0.090 (f8)
88.90	3+½	48.76	
90.00		49.98	
95.00		55.68	
100.00		61.70	

★ Hard Chrome Bar Stock sizes (S55C)

O.D mm	O.D inch	Weight Kg/m	Tolerance (ISO)
8.00		0.39	-0.013 /-0.035 (f8)
10.00		0.62	
12.00		0.89	-0.016 /-0.043 (f8)
13.00		1.04	
16.00		1.58	
20.00		2.47	-0.020 /-0.053 (f8)
25.00		3.86	
30.00		5.55	
35.00		7.56	-0.025 /-0.064 (f8)
40.00		9.87	
45.00		12.49	
50.00		15.43	
60.00		22.21	-0.030 /-0.076 (f8)
65.00		26.07	
70.00		30.23	
75.00		34.71	
80.00		39.49	
85.00		44.58	-0.036 /-0.090 (f8)
90.00		49.98	