

BS S514 / BS S515

Technical Datasheet



Service. Quality. Value.

Carbon-Manganese Steel Sheet

Typical Applications

- Wishbones
- Space frame chassis
- Aerospace fabrication
- Bodywork
- Blanking panels

Product Description

Carbon-manganese steel available in sheet and strip. Both grades chemically identical, S514 supplied heat treated to produce tensile strength (Rm) 770-1000 N/mm². S515 supplied soft annealed to give tensile strength (Rm) 460-600 N/mm² before final heat treatment.

Related Specifications

- EN14A

Key Features:

- S514 & S515 are chemically identical
- S514 supplied in the heat treated condition
- S515 supplied in the soft annealed condition
- Used when extra strength is required when compared with mild steel
- Easily welded

Corrosion Resistance

Protection required if exposed to the atmosphere

Weldability

Easily welded

Availability

Sheet, strip

Chemical Composition (weight %)

Weight (%)	C	Si	Mn	P	Cr	Mo	Ni	S
Min	0.17	0.10	1.30					
Max	0.25	0.35	1.70	0.040	0.25	0.10	0.40	0.040

Mechanical Properties (S514 supplied hardened & tempered, S515 supplied softened)

Grade	Tensile Strength Rm, N/mm ²	Proof Stress Rp 0.2, N/mm ²	Elongation in 5.65√Cross Sectional Area (%)	Hardness (HB)	Size
S514	770-1000	630	8	229-302	<1.6mm
S514	770-1000	630	10	229-302	1.6 - 2.4mm
S514	770-1000	630	12	229-302	>2.4mm
S515	400-600	-	14	179 max	<1.6mm
		-	17	179 max	1.6 - 2.4mm
		-	20	179 max	>2.4mm

Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

UK Service Centres:

Smiths Belfast 02895 908 897
Smiths Biggleswade 01767 604 704
Smiths Birmingham 0121 728 4940
Smiths Bristol 0117 971 2800
Smiths Chelmsford 01245 466 664
Smiths Gateshead 0191 469 5428
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Smiths Norwich 01603 789 878
Smiths Nottingham 0115 925 4801
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Smiths Verwood 01202 824 347
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Quality & Testing:



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