

SPRING STEEL**DSM 1.4.1****Definition:**

Spring steel: A typically high yield strength material with resistance to deformation & the ability to return to its original shape.

Heated to a temperature or colour (Drawn annealed) & cooled slowly, allowing easier cutting or shaping. Then hardened & tempered (to reduce brittleness). Available in sheet form or coil.

Features:

Generally used where higher strength is required in lower thickness material. Can be water jet or laser cut to shape.

ASM (DEK) Applications:

- Foils.

These values are representative and should not be considered as definitive. For critical applications, refer to material data-sheet.

TYPICAL MECHANICAL PROPERTIES @25°C	
DENSITY:	7850 Kg/m³
YOUNGS MODULUS:	210 GPa
POISSONS RATIO:	0.29
YIELD STRENGTH	1100 MPa
TENSILE STRENGTH	1700 MPa

Issue	01	02	03	04	05	06	07	08	09
DCR	7135	30040	44682						



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CHEMICAL ANALYSIS		BENEFIT
Carbon	0.90/1.00	High content: V. strong ideal for springs & wire
Silicon	0,05/0,35	Increases purity/ quality. (principle deoxidizer)
Mang	0.30/0.60	Combines with sulphur: good machining & finish.
Phos	0.025 max	Increases resistance to corrosion.
Sulphur	0.025 max	Good for machining.

CURRENT INTERNATIONAL SPECIFICATION COMPARISON	
BRITISH: BS	BS EN 10132: 2000: C100S
GERMAN: DIN	CK101
AMERICAN: SAE	1095
EUROPEAN STEEL No.	1.1274
JAPANESE GRADE	JIS G SUP 4
CHINESE GRADE	----

REPLACES

PRODUCT	BS 5770 1981	DESCRIPTION
Spring Stl	CSHT 95	Hardened & Tempered

Alternatives:

Alternative materials are allowed only with the express written permission of ASMPT. Please email details of your request to engineering_enquiries@asmpt.com

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These sizes are given in good faith and should not be considered as definitive

THICKNESS (mm)	C100S HARDNESS VALUES
0.1 – 0.25	48 – 51 Rc
0.25 – 0.5	-

Sheet (mm) _ Hardened & Tempered	
0.10	155 x 1000
0.15	150 x 1000
0.20	165 x 1000
0.25	165 x 1000
0.30	152 x 1000
0.40	240 x 1000
0.50	300 x 2500
0.70	310 x 2500
0.80	350 x 2500
1.00	450 x 1250
1.00	450 x 2500

Unless otherwise stated on the Engineering Drawing:-
C100S 0,10mm (0.004”) thickness should be ordered.

On request, this grade is available sheared to a minimum
width of 8,0mm at 0,10mm thick (0.004”).

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