

SPRING STEEL _ CS80**H&T 45-49 RC Polished 440/480 VPN****DSM 1.4.2****Definition:**

Spring steel: A typically high yield strength material with resistance to deformation & the ability to return to its original shape. Generally used where higher strength is required in lower thickness material.

CS 80: Carbon Spring 0, **80** % Carbon content.

Precision rolled with good surface finish & flatness and close thickness tolerance.

For spring applications it is usually supplied in the Hardened & Tempered condition, and in **strip** form to be supplied with a polished finish and dressed edges.

Features:

Heated to a temperature or colour (Drawn annealed) & cooled slowly, allowing easier cutting or shaping. Then hardened & tempered to reduce brittleness and to avoid the cost of further hardening once components are produced.

Available in sheet form or coil & can be water jet or laser cut to shape.

ASM (DEK) Applications:

- Squeegee Blades

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:	206 GPa
POISSONS RATIO:	0.29
YIELD STRENGTH	405 MPa
TENSILE STRENGTH	620 MPa

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DCR	44781	44798							



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CHEMICAL ANALYSIS		BENEFIT
Carbon	0.75/0.85	High content: V. strong ideal for springs & wire
Silicon	0,05/0,35	Increases purity/ quality. (principle deoxidizer)
Mang	0.50/0.90	Combines with sulphur: good machining & finish.
Phos	0.045 max	Increases resistance to corrosion.
Sulphur	0.045 max	Good for machining.

CURRENT INTERNATIONAL SPECIFICATION COMPARISON	
BRITISH: BS	BS 1449: CS80
GERMAN: DIN 17222	CK 85
AMERICAN: AISI	1084
EN 10132-4	C85S
JAPANESE GRADE	JIS G 3311 SK 5
CHINESE GRADE	----

Unless otherwise stated on the Engineering Drawing:-

CS80 0,10mm (0.004”) thickness should be ordered.

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

REPLACES

PRODUCT	BS 970 1981	DESCRIPTION
Strip	En 42	Carbon Spring Steel - Harden & 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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