



67 SiCr 5

Spring Steel, Collet Steel

Distinctive feature & main attribute

A temperable spring steel, combining good resiliency, enormous tenacity and wear resistance. Special Alloy designed for collet chucks.

Use & application range

This quality is suitable for coil springs, torsion bar suspensions, valve and circular springs, collet chucks and shear blade amongst others.

Material No. and norms

Material No.	~ 1.7103
DIN Abbreviation	67SiCr5
AFNOR	
AISI/SAE/ASTM	AISI ~ 9254
ISO	
Euro Standard EN	67SiCr5
Others	

Reference analysis %

C	Si	Mn	P	S	S	Cr	Fe	
0.68		0.90	0.40	max.	0.01	0.01	0.50	balance
0.77		1.10	0.60	0.025	0.03	0.03	0.80	

Execution, delivery form, standard sizes and availability

- Execution in 3 m round bars
- Standard size in stock: [see product range](#)
- Other sizes on request

Tolerances

- High precision cold drawn, ground, polished; ISO h6 (h7); surface finish N5/N6
- Ø ≥ 4.00 mm, sharpened & chamfered
- Ø ≥ 5.00 mm; eddy current checked for fissures
- Tighter tolerances (up to +/- 0.002 mm) on request

Mechanical properties

At delivery status:

- Tensile strength (Rm): ~ 740 MPa (~ 255 HB)
- Hardness after tempering: 40 – 61 HRC, as required

Heat treatment

- Tempering in oil: 830 – 860°C
- Annealing as required see chart

Cutting rates

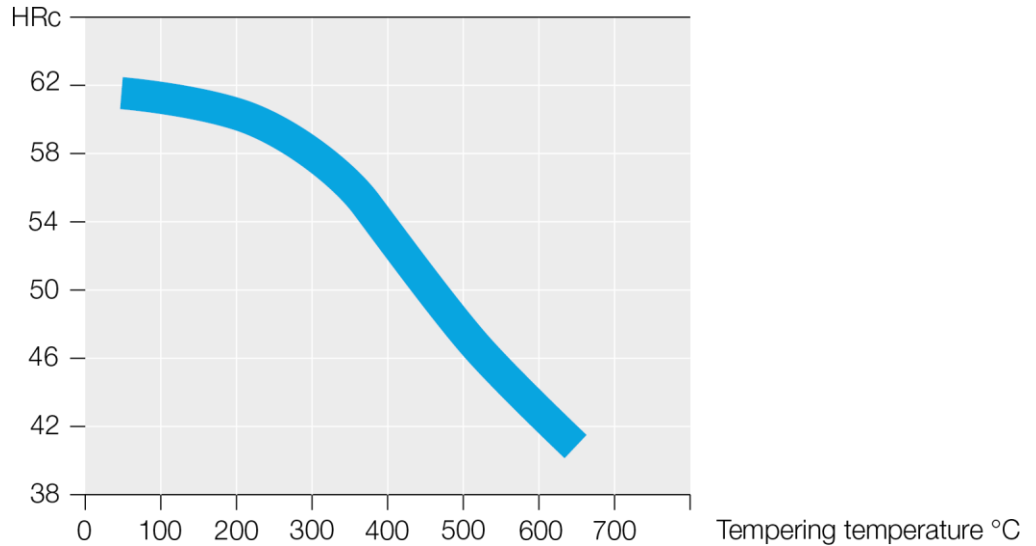
vc ~ 20 – 30 m/min, value depending on the lubrication oil, cutting tools and shape of parts.



67 SiCr 5

Spring Steel, Collet Steel

ANNEALING CURVE



The above curve indicates the results of determinate section of a curtain size of 5 mm. The result after heat treatment can be slightly different than shown on this curve, depending on the shape and size of the part.