

Material information sheet

Material number: 1.2243

Material: 61 Cr Si V 5

Steelgroup: alloyed tool steels Cr-V, Cr-V-Mn, Cr-V-Si und Cr-V-Mn-Si-steels

Usage: tool steels for cold working:

Wear-resistance with high toughness

Screwdriver blade, partly also Bits or right-angle screwdriver, work hardened tools for high compressive stress, extruding press tools, metal shear blade, cutting tools, etc.

Chemical composition:

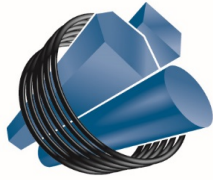
	C	Si	Mn	P	S	Cr	V
Minimum	0,57	0,70	0,60	0,00	0,00	1,00	0,07
Maximum	0,65	1,00	0,90	0,035	0,035	1,30	0,12

Heat treatment:

Hot-forming	soft-annealing (+A)	Stress relief annealing	hardening in Oil	tempering
850 - 1050 °C	700 - 740 °C	650 - 680 °C	850 - 880 °C	180 - 300 °C

Mechanical characteristics:

Hardness after glowing	$R_m \leq 740 \text{ MPa}$
Surface hardness after hardening	~ 62 HRC
Quenching and tempering values:	
Tempered at ~ 100 °C	~ 62 HRC
Tempered at ~ 200 °C	~ 61 HRC
Tempered at ~ 300 °C	~ 57 HRC $\approx R_m = 2105 \text{ MPa}$
Tempered at ~ 400 °C	~ 52 HRC $\approx R_m = 1775 \text{ MPa}$
Tempered at ~ 500 °C	~ 45 HRC $\approx R_m = 1455 \text{ MPa}$



Stocks:

Steels:

- Bar length: 3 m
- Tolerance data: EN 10278
- Technical delivery conditions: EN 10277, surface quality class 2

execution	Cross section design (mm)	
	round	6-edge
Tolerance	h9	h11
+AC+C+A+C	2,5 – 11	1/4"

Rings:

- coil weight: 400 – 500 kg
- Tolerance data: EN 10278
- Technical delivery conditions: EN 10277, surface quality class 2

execution	dimensions
	round (mm)
Tolerance	h9
+AC+C+A+C	3 - 6