

Material specification sheet

Saarstahl - 30MnVS6 (27MnSiVS6) - Saarform 900

Material No.:	German standard:	International steel grades:
1.1302 (1.5232)	DIN EN 10267	BS: AFNOR: SAE:

Material group: Dispersion hardening ferritic-pearlitic cold heading steel

Chemical composition: (typical analysis at Saarstahl in %)	C	Si	Mn	P	S	Cr	Ti	V	N
	0,30	0,65	1,50	<0,020	<0,025	0,15	0,02	0,12	0,015
Deviation in chemical composition on request									

Application: Micro-alloyed ferritic-pearlitic cold heading steel owing its properties to temperature-controlled rolling and the addition of micro-alloying elements. The mechanical properties required in the finished part are obtained by a specifically matched combination of as-rolled strength and the strain hardening effects of the drawing reduction and the strain-hardening operation.

Use for short and long-shaft ball points, threaded and heavy duty anchor bolts of strength class 800 to 1000 MPa without final quenching and tempering after cold forging.

Hot forming and heat treatment: Furnace temperature before hot forming: 1220 - 1280°C

Mechanical properties: As rolled

Diameter d [mm]	5 - 30
0,2% proof stress $R_{p0,2}$ [N/mm ²]	about 500
Tensile strength R_m [N/mm ²]	720 - 820
Fracture elongation A_5 [%]	≥ 20
Reduction of area Z [%]	≥ 50
Microstructure:	about 50 % ferrite, balance pearlite