

Material specification sheet

Saarstahl - 17MnV7 - Saarform 850

Material No.: German standard: International steel grades:

1.0870

SAE:

JIS:

Material group: Cold heading steel

Chemical composition: (typical analysis at Saarstahl in %)	C	Si	Mn	P	S	Cr	V	N
	0,19	0,37	1,35	<0,015	<0,015	0,13	0,11	0,01

Deviation in chemical composition on request

Application: Ferritic-pearlitic cold heading steel owing its properties to a specifically matched combination of temperature-controlled rolling and the additions of micro-alloying elements. The result is a fine lamellar pearlitic structure with high strength and ductility. Use for short and long shaft ball points, screws and threaded bolts of strength class 800 to 1000 MPa without final quenching and tempering after cold forging.

Hot forming and heat treatment: Forging or hot rolling: 1100 - 850°C

Mechanical properties: As rolled

Diameter d [mm]	5 - 22
0,2% proof stress $R_{p0,2}$ [N/mm ²]	about 450
Tensile strength R_m [N/mm ²]	600 - 700
Fracture elongation A_5 [%]	≥ 20
Reduction of area Z [%]	≥ 50
Microstructure:	about 70 % ferrite, balance pearlite