

## Material specification sheet

### Saarstahl - 22MnB4

Material No.:	Former brand name:	International steel grades:
1.5522	RKS 21 B	BS: AFNOR: SAE: 15B21H

**Material group:** Cold heading and cold extrusion steel according to DIN EN 10263-3

Chemical composition: (Typical analysis in %)	C	Si	Mn	other
	0,20	0,25	1,00	+B

**Application:** Manganese und boron-alloyed cold heading and cold extrusion steel for screws and nuts.

<b>Hot forming and heat treatment:</b>	Soft annealing:	650 - 700°C/furnace
	Hardening:	870 - 900°C/water
	Tempering:	500 - 670°C/air

#### Mechanical Properties:

	Naturally hard	Spheroidized annealed and spheroidized annealed + peeled
Tensile strength $R_m$ [N/mm <sup>2</sup> ]	max. 540	max. 510
Reduction of area Z [%]	min. 55	min. 63

Core hardness after oil-hardening in HRC

Diameter d [mm]	min. 8	min. 16	min. 20
Hardness [HRC]	min. 42	min. 40	min. 36