

## Material specification sheet

### Saarstahl - 17Cr3

Material No:	Former brand name:	International steel grades:
<b>1.7016</b>		<b>BS:</b> <b>AFNOR:</b> 18C3 <b>SAE:</b> 5117

**Material group:** Case hardening steels according to DIN EN 10084

Chemical composition: (Typical analysis in %)	C	Si	Mn	P	S	Cr
	0,14 0,20	<0,40	0,60 0,90	<0,035	<0,035	0,70 1,00

**Application:** Alloyed case hardening steel for parts with good wear resistance as boxes, driving gears, camshafts, pinions, spindles, gears.

<b>Hot forming and heat treatment:</b>	Forging or hot rolling:	1150 - 900°C
	Normalising:	850 - 880°C
	Soft annealing:	650 - 700°C
	Carburising:	880 - 980°C
	Core hardening:	860 - 900°C
	Intermediate annealing:	650 - 700°C
	Case hardening:	780 - 820°C
	Tempering:	150 - 200°C

<b>Mechanical Properties:</b>	Treated for cold shearability, +S:	Shearable in as rolled condition
	Soft annealed, +A:	max. 174 HB
	Treated for strength, +TH:	-
	Treated for ferrite and pearlite structure and hardness range, +FP:	-

after hardening and tempering at 200°C

Diameter d [mm]	d ≤ 16	16 < d ≤ 40	40 < d ≤ 100
Tensile strength R <sub>m</sub> [N/mm <sup>2</sup> ]	min. 800	min. 700	-