Material specification sheet

Saarstahl - 17CrNi6-6 - 15CrNi6

Material No.:	Former brand name:	International steel grades:
1.5918	**RECNW**	**BS:**
		AFNOR: 16NC6
1.5919		**SAE:** 3115

Material group: Case hardening steels according to DIN EN 10084

Chemical composition: (Typical analysis in %)

C	Si	Mn	Cr	Ni	other
0,15	0,25	0,50	1,55	1,55	(Pb)

Application: Alloyed case hardening steel for highly strained parts and good toughness at core tensile strength of 900 - 1200 N/mm². Driving bevel gears, crown wheels, gears, shafts, bolts for automotive and gear components.

Hot forming and heat treatment:

Forging or hot rolling:	1100 - 850°C
Normalising:	850 - 880°C/air
Soft annealing:	650 - 700°C/furnace
Carburising:	880 - 980°C
Core hardening:	830 - 870°C/oil
Intermediate annealing:	630 - 650°C
Case hardening:	780 - 820°C/oil
Tempering:	150 - 200°C

Mechanical Properties:

Treated for cold shearability, +S:	max. 255 HB
Soft annealed, +A:	max. 229 HB
Treated for strength, +TH:	175 - 229 HB
Treated for ferrite and pearlite structure and hardness range, +FP:	156 - 207 HB

after hardening and tempering at 200°C:

Diameter d [mm]	d <= 16	16 <d <= 40	40 <d <= 100
Tensile strength R_m [N/mm²]	min. 1200	min. 1100	min. 900