Material specification sheet

Saarstahl - 20MoCrS4

Material No.:	Former brand name:	International steel grades:
1.7323	**Mo 20**	**BS:** **AFNOR:** **SAE:**

Material group: Case hardening steels according to DIN EN 10084

Chemical composition: (Typical analysis in %)

C	Si	Mn	Cr	Mo	S	other
0,20	0,25	0,75	0,40	0,45	0,020 0,035	(Pb)

Application: Alloyed case hardening steel for wear resisting automobile and gear parts with a core tensile strength of 800 - 1100 N/mm² and high toughness for gears, crown wheels, primary shafts etc. Suitable for direct hardening.

Hot forming and heat treatment:

Forging or hot rolling:	1150 - 850°C
Normalising:	840 - 870°C/air
Soft annealing:	650 - 700°C/furnace
Carburising:	880 - 980°C
Core hardening:	860 - 900°C/oil
Intermediate annealing:	650 - 700°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. 207 HB
Treated for strength, +TH:	156 - 207 HB
Treated for ferrite and pearlite structure and hardness range, +FP:	140 - 187 HB

after hardening and tempering at 200°C:

Diameter d [mm]	d <= 16	16 <d <= 40	40 <d <= 100
Tensile strength R_{pm} [N/mm²]	min. 900	min. 800	-