

Material specification sheet

Saarstahl - 22CrMoS3-5

Material No.:

1.7333

Former brand name:

International steel grades:

BS:
AFNOR:
SAE:

Material group:

Case hardening steels according DIN EN 10084

Chemical composition: (Typical analysis in %)	C	Si	Mn	Cr	Mo	P	S
	0,19 0,24	<0,40	0,70 1,00	0,70 1,00	0,40 0,50	<0,035	0,020 0,040

Application:

Alloyed case hardening steel for wear resisting parts at high core tensile strength and good machinability.

Hot forming and heat treatment:

Forging or hot rolling:	1150 - 900°C
Normalising:	840 - 870°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

Mechanical Properties:

Treated for cold shearability, +S:	max. 255 HB
Soft annealed, +A:	max. 217 HB
Treated for strength, +TH:	170 - 217 HB
Treated for ferrite and pearlite structure and hardness range, +FP:	152 - 201 HB

after hardening and tempering at 200°C:

Diameter d [mm]	d ≤ 16	16 < d ≤ 40	40 < d ≤ 100
Tensile strength R _{pm} [N/mm ²]	min. 1100	min. 1000	min. 900