

Stellapur PM 23

Ultra Clean Powder Metallurgy Steel

Chemical composition

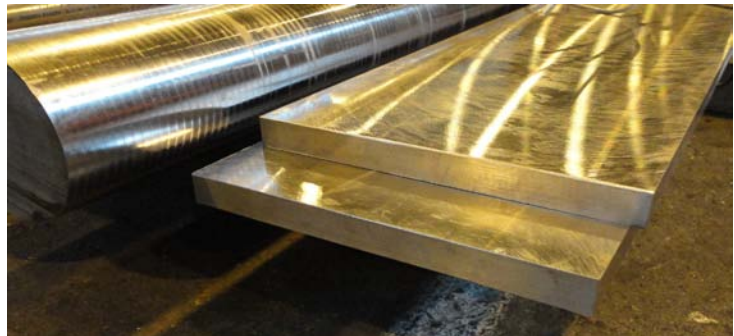
C	Cr	Mo	W	V	Co
1,28	4,0	5,0	6,4	3,1	-

Standards:

Europe HS 6-5-3
W.Nr. 1.3344
AISI (M3:2)
Japan SKH 53
Sweden SS 2725

Delivery hardness

Max 280 HB



Stellapur PM 23, flat machined bar

Characteristics

Stellapur PM 23 is a non Co alloyed grade for high performance cold work and cutting tool applications. The grade combines high toughness with high wear resistance. The grindability is excellent and the grade is suitable for different kind of PVD coatings. For nitriding max 2-15 µm is recommended.

Typical applications:

Cold work tools	Taps
Gear cutting tools	Rolls
Broaches	Knifes

Form supplied

Forging

Round	90 – 380 mm
Flat/square	Max width 450 mm Min thickness 40 mm

Rolling

Peeled	10 – 72 mm
Flat black	Width 20 -260 mm Thickness 5 – 55 mm

Profiles

On request

PM Block

400 x 500 x 2100 mm
400 x 500 x 1100 mm
400 x 500 x 1000 mm
400 x 250 x 1000 mm
500 x 200 x 1000 mm

Heat treatment

Soft annealing

Protective atmosphere 850 – 900°C followed by slow cooling at 10°C/h down to 700°C. After that, air cooling.

Stress-relieving

600 – 700°C for approximately 2 hours and slow cooling down to 500°C.

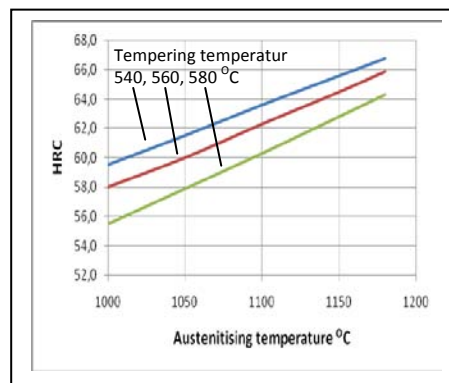
Hardening

Protective atmosphere with pre-heating in 2 steps at 400 – 500°C and 850 – 900°C and austenitising at a temperature suitable for chosen hardness followed by rapid cooling down to 40 – 50°C

Tempering

560°C three times for at least 1 hour each time.

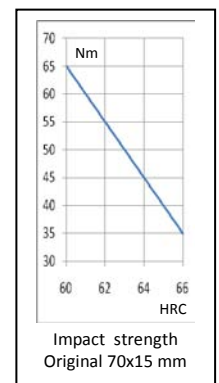
Cooling to room temperature (20-30°C) between temperings.



Austenitizing temperature

HRC	°C
58	1000
59	1030
60	1050
61	1080
62	1100
63	1120
64	1140
65	1160
66	1180

Tempering
3 x at 560°C



Impact strength
Original 70x15 mm