

Stellapur PM 4

Ultra Clean Powder Metallurgy Steel

Chemical composition

C	Cr	Mo	W	V
1,40	4,2	5,0	5,8	4,1

Standards:

Europe HS 6-5-4
W.Nr. 1.3351
AISI M4

Delivery hardness

Max 260 HB



Stellapur PM 4. Capsule free machined block.

Characteristics

Stellapur PM 4 is a high V alloyed grade for improved wear resistance. A suitable grade for cold work applications. The grade can easily be wire cut. Recommended for PVD/CVD coating. For nitriding max 2-15 µm is recommended.

Typical applications:

Cold work tools Punches
Milling cutters Dies
Blanking tools Taps
Rolls Broaches

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.

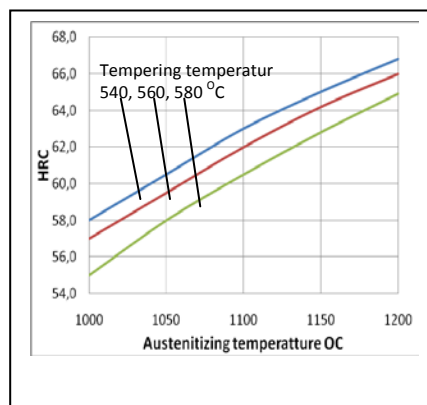
Hardening

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
59	1040
60	1060
61	1080
62	1100
63	1120
64	1150
65	1170
66	1200

Tempering
3 x at 560°C

