

# Stellapur PM 53

## Ultra Clean Powder Metallurgy Steel

### Chemical composition

C	Cr	Mo	W	V
2,48	4,2	3,1	4,2	8,0

### Standards:

Europe HS 4-3-8

### Delivery hardness

Max 300 HB

### Characteristics

Stellapur PM 53 is a high V alloyed grade for improved wear resistance. A suitable grade for cold work applications, like stamping, powder pressing and industrial knives for paper and wood cutting. The grade can easily be wire cut. Recommended for PVD/CVD coating. For nitriding max 2-15 µm is recommended.



Stellapur PM 53 is a grade designed for high abrasive wear applications.

### 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.

### Form supplied

#### Forging

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

#### Rolling

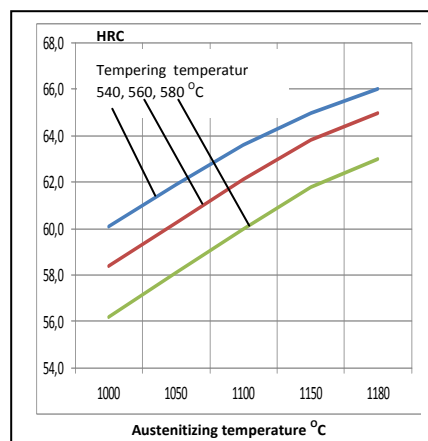
Peeled	10 – 72 mm
Flat black	Width 20 -260 mm Thickness 5 - 55mm

#### 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



#### Austenitising temperature HRC °C

58	990
59	1000
60	1040
61	1060
62	1100
63	1130
64	1150
65	1180
Tempering 3 x at 560°C	

