

Stellapur PM 10

Ultra Clean Powder Metallurgy Steel

Chemical composition

C	Cr	Mo	W	V
2,45	5,3	1,3	-	9,8

Standards:

AISI A11



Delivery hardness

Max 280 HB

Stellapur PM 10 is a grade designed for high abrasive wear applications like wood and paper knives.

Characteristics

Stellapur PM 10 is a high V alloyed grade for improved wear resistance. A suitable grade for cold work applications, knives and other abrasive wear parts. 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
Knives
Wood and paper tools

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

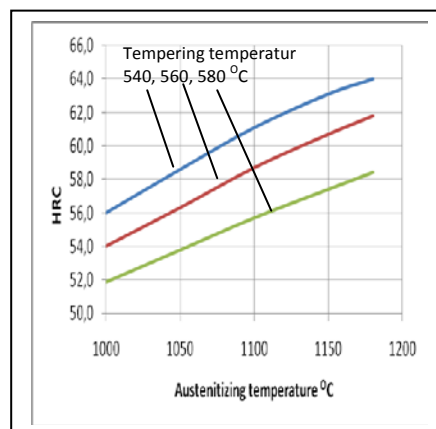
Peeled 10 – 72 mm
Flat black Width 20 -260 mm
Thickness 5 - 55mm

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



Austenitizing temperature

HRC	°C
54	1000
55	1030
56	1050
57	1060
58	1080
59	1100
60	1120
61	1150
62	1180

Tempering
3 x at 560°C

