

5N45



High Performance Mechanical

18kt

GENERAL INFORMATION

Colour: 5N red (**EN28654** Compliant)
Advised use: mechanical works
Secondary use: casting (if necessary usage of one alloy only)

MECHANICAL WORKS	stamping	■	chains	■	tube	■	spring	■
CASTING	closed systems	■	open systems	■	pre-set stones			■

Density: 14,93 g/cm³
Hardness (as cast): 170 HV
Hardness (after cold work 70%): 276 HV
Hardness (after annealing): 167 HV
Hardness (after age hardening): 310 HV

DIRECTIONS FOR SUGGESTED USE

Melting temperature: 890 °C

Casting temperature:

100 °C over its melting temperature to cast into ingot-mould and continuous casting.

100 °C over its melting temperature to cast with centrifugal machines.

120 °C over its melting temperature to cast in vacuum machines with controlled atmosphere.

140 °C over its melting temperature to cast in outdoor cylinders with vacuum.

Ingot-mould temperature: 150 °C

Cylinders temperature: from 550 °C to 650 °C depending on the machine and objects dimensions.

Cooling of ingots: quick in lukewarm water (about 40 °C)

Cooling casted objects: in water after 10 minutes.

Annealing: 650 °C for 20 minutes followed by a quick cooling in hot water (40 °C min.)

Age hardening: *Step 1: solubilization*
680 °C for 30 minutes. Cooling quickly in warm water (about 40 °C).

Step 2: hardening
300 °C for 2 hours. Cooling at room temperature.

HINTS

- ❖ Recommended Pandora Alloys 18kt 5N red solders: TR5NJ (soft), MR5NJ (medium), FR5NJ (hard)

The above directions are only indicative. Strong variations to the above data are possible, depending on personal experience. Please, do not hesitate to contact us for further information.