

ELA2



High Performance Mechanical
High Performance Casting

18 kt

GENERAL INFORMATION

Carats: 18 kt, suitable also for 14 kt (see specific tech data sheet)
 Colour: white – standard
 colour coordinates: L*=87.7 a*=3.5 b*=16.3
 Advised use: universal (both mechanical works and casting)

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

Density: 14,89 g/cm³
 Hardness (as cast): 161 HV
 Hardness (after cold work 70%): 269 HV
 Hardness (after annealing): 158 HV
 Hardness (after age hardening): 220 HV

DIRECTIONS FOR SUGGESTED USE

Melting temperature: 880 °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 machine
 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: 620 °C for 20 minutes followed by a quick cooling in hot water (40 °C min.), better if with alcohol

Age hardening:

Step 1: solubilization

720 °C for 30 minutes. Cooling quickly in lukewarm water (about 40 °C), better if with alcohol.

Step 2: hardening

300 °C for 2 hours. Cooling at room temperature.

Nickel release UNI EN 1811:2015: 0,05 µg/cm²/week - **COMPLIANT** (max. 0.88 µg/cm²/week)
 Nickel release test on finished objects is required

HINTS

- ❖ Recommended Pandora Alloys 18 kt white solders: TB18 (soft), MB18 (medium), FB18 (hard)
- ❖ Suggested Pandora Alloys plating solutions: Rhodium P2 and Palladium PDSOL/BE

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.