

TECHNICAL SPECIFICATIONS

Heraeus

Alloy Code: **H-6693A** **Colour:** **White**

Suitable Karatage: 18K
Content : **Nickel:** 17.6% **Palladium:** 0.0%
 Silver: 0.0% **Platinum:** 0.0%
Applications: Suitable for loss wax casting and hand-making

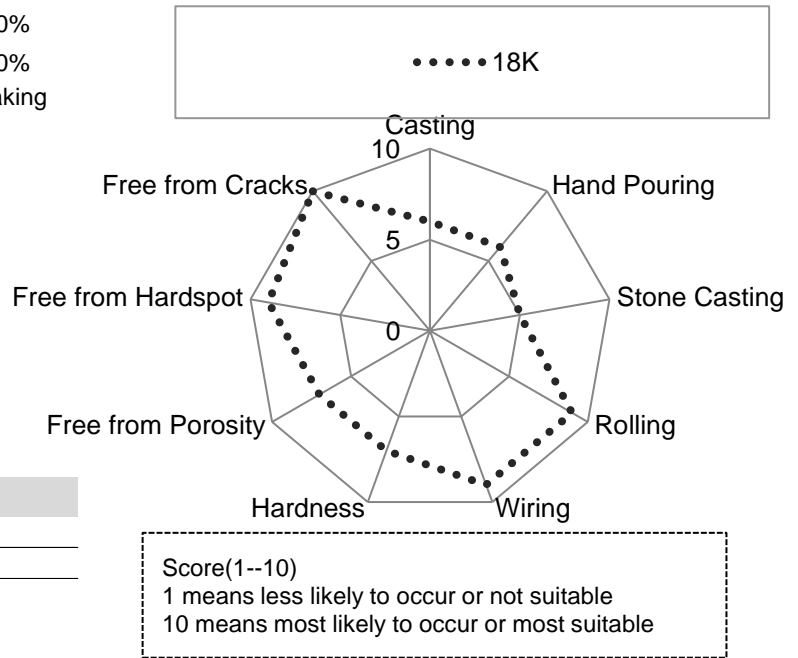
Advantages: 18KW passed the Nickel Releasing Test (EN1811),

Melting Range (°C):

18K	917 - 922
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CIELAB Value :

Karat	YI:D1925	L*	a*	b*
18K	28.6	85.6	1.4	13.7



Mechanical Properties :

Karat	Annealed Hardness (HV)	As Casted Hardness (HV)	Max. Strength (MPa)	Yield Strength (MPa)	Elongation (%)
18K	182	183	424	144	30

Recommended Casting Parameters :

(Quenching Time: 15-25 Minutes)

Karat	Metal Casting Temperature (°C)	Vacuum-assisted Casting Investment Temperature (°C)		
		Thickness of work piece (mm)		
		Thin (<0.5)	Medium (0.5~1.1)	Thick (>1.1)
18K	1040-1060	680-720	600-680	550-600

Recommended Mechanical Working Parameters:

Recommended Annealing Temperature (°C)	Annealing Time for thickness (min)	< 1 mm	1 - 5 mm	> 5 mm
H-6693A	650 - 700	30	35	40

Process	Casting Temperature (°C)	Recommended Reductions
Ingot	1000 - 1040	Sheet Thickness % 70
Continuous Casting	1020 - 1060	Wire Diameter % 45

Technical Advice:

- To avoid oxidation, the alloys must be covered with inert gas or yellow flame during casting.
- Not more than 50 % of old material should be used for recasting.
- The old material must be tumbled to remove the investment powder residue and oxides.
The material is then pickled in dilute sulfuric acid (15 %) for 15 - 20 minutes to remove the rest of oxides.
- The sprue should be placed at the thickest position. Additional sprue must be applied if necessary.
Fluted sprue is preferred to avoid any turbulence.

Remarks: The information is for your reference only. The parameters should be adjusted according to the particular casting conditions.
 If you have any technical questions, please do not hesitate to contact us.