TECHNICAL SPECIFICATIONS

Heraeus

Alloy Code: H-9304 Colour: White

Suitable Karatage: 18K

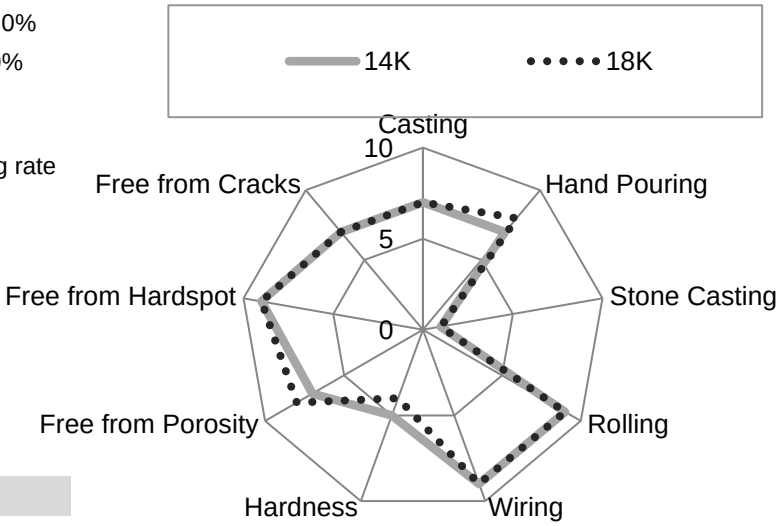
Content : **Nickel:** 0.0% **Palladium:** 32.0%
Silver: 60.8% **Platinum:** 0.0%

Applications: Suitable for loss wax casting, hand-making

Advantages: Shiny & white, less porosity, high re-casting rate

Melting Range (ºC):

14K	N/A
18K	N/A



Score(1--10)
1 means less likely to occur or not suitable
10 means most likely to occur or most suitable

CIELAB Value :

Karat	YI:D1925	L*	a*	b*
14K	21.0	84.2	0.7	9.8
18K	25.2	81.9	0.2	12.0

Mechanical Properties :

Karat	Annealed Hardness (HV)	As Casted Hardness (HV)	Max. Strength (MPa)	Yield Strength (MPa)	Elongation (%)
14K	97	100	NA	NA	NA
18K	88	90	252	91	26

Recommended Casting Parameters : (Quenching Time: 15 - 25 Minutes)

Karat	Metal Casting Temperature (ºC)	Vacuum-assisted Casting Investment Temperature (ºC) Thickness of work piece (mm) Thin (<0.5)	Medium (0.5~1.1)	Thick (>1.1)
14K	1235-1255	720-760	700-720	680-720
18K	1195-1215	700-720	680-700	600-680

Recommended Mechanical Working Parameters:

Recommended Annealing Temperature (ºC)		Annealing Time for thickness (min)	< 1 mm	1 - 5 mm	> 5 mm
H-9304	700 - 750		30	35	40

Process	Casting Temperature (ºC)	Recommended Reductions	
Ingot	1110 - 1150	Sheet Thickness %	85
Continuous Casting	1140 - 1220	Wire Diameter %	50

Technical Advice:

1. To avoid oxidation, the alloys must be covered with inert gas or yellow flame during casting.
2. Not more than 50 % of old material should be used for recasting.
3. 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.
4. 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.

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