

TECHNICAL SPECIFICATIONS

Heraeus

Alloy Code: **H-144L** **Colour:** **White**

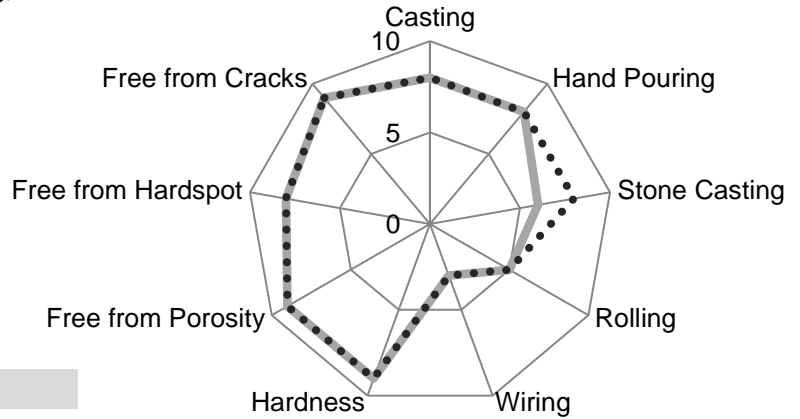
Suitable Karatage: 14/18K
Content : **Nickel:** 25.0% **Palladium:** 0.0%
 Silver: 0.0% **Platinum:** 0.0%

Applications: Suitable for loss wax casting, torch melting, stone casting

Advantages: Less porosity, low melt-loss

Melting Range (°C):

14K	950 - 970
18K	903 - 915



CIELAB Value :

Karat	YI:D1925	L*	a*	b*
14K	21.3	80.8	0.4	9.7
18K	23.2	83.3	0.8	11.0

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

Recommended Casting Parameters : **(Quenching Time: 15 - 30 Minutes)**

Karat	Metal Casting Temperature (°C)	Vacuum-assisted Casting Investment Temperature (°C)		
		Thickness of work piece (mm)		
		Thin (0.2~0.5)	Medium (0.5~1.1)	Thick (>1.1)
14K	1050 - 1070	680-720	620-680	570-620
18K	1020 - 1040	680-720	600-680	550-600

Tensile Properties :

Karat	Annealed Hardness (HV)	As Casted Hardness (HV)	Max Strength (MPa)	Yield Strength (MPa)	Elongation (%)
14K	194	215	555	214	33
18K	190	198	594	196	21

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.