

# TECHNICAL SPECIFICATIONS

# Heraeus

**Alloy Code: H-111**      **Colour: Deep Yellow**

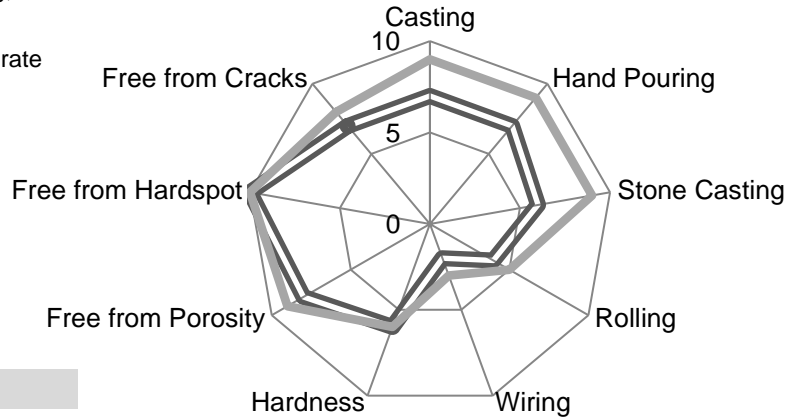
**Suitable Karatage:** 10/14K  
**Content :**      **Nickel:** 0.0%      **Palladium:** 0.0%  
                   **Silver:** 10.9%      **Platinum:** 0.0%

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

**Advantages:** High fluidity, less porosity, high re-casting rate

**Melting Range (°C):**

10K	860 - 866
14K	862 - 868



**CIELAB Value :**

Karat	YI:D1925	L*	a*	b*
10K	34.2	83.9	0.4	17.4
14K	34.6	85.3	0.6	17.5

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 - 25 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)
10K	960-980	660-720	580-660	460-580
14K	960-980	660-720	580-660	460-580

**Tensile Properties :**

Karat	Annealed Hardness (HV)	As Casted Hardness (HV)	Max Strength (MPa)	Yield Strength (MPa)	Elongation (%)
10K	121	144	295	155	37
14K	125	143	317	159	42

**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.