

TECHNICAL SPECIFICATIONS

Heraeus

Alloy Code: **H-853SL** **Colour:** **Deep Pink**

Suitable Karatage: 10/14/18K
Content : **Nickel:** 0.0% **Palladium:** 0.0%
 Silver: 4.0% **Platinum:** 0.0%

Applications: Suitable for loss wax casting, torch melting

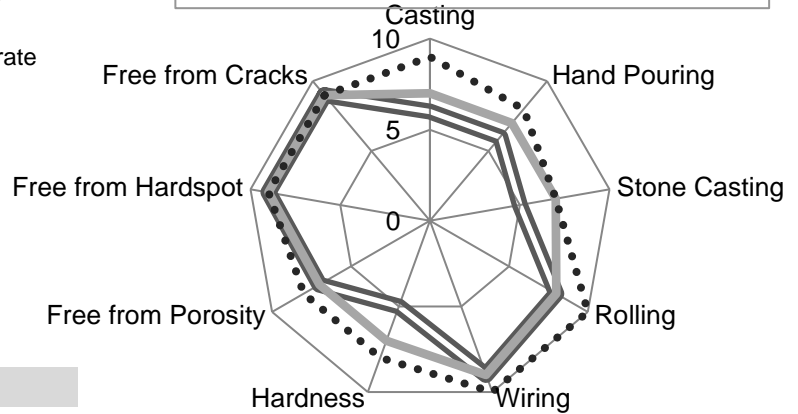
Advantages: Shiny, not easily cracked, high re-casting rate

Melting Range (°C):

10K	951 - 955
14K	920 - 927
18K	893 - 897

CIELAB Value :

Karat	YI:D1925	L*	a*	b*
10K	35.1	84.8	7.3	14.2
14K	33.9	83.7	7.1	13.5
18K	36.7	83.9	6.7	15.3



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

Mechanical Properties :

Karat	Annealed Hardness (HV)	As Casted Hardness (HV)	Max. Strength (MPa)	Yield Strength (MPa)	Elongation (%)
10K	110	101	351	144	38
14K	120	118	396	194	41
18K	170	177	450	114	31

Recommended Casting Parameters :

(Quenching Time: 5-10 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)
10K	1060 - 1080	660-720	600-660	500-600
14K	1020 - 1040	660-720	600-660	500-600
18K	1000-1020	660-720	580-660	480-580

Recommended Mechanical Working Parameters:

Recommended Annealing Temperature (°C)	Annealing Time for thickness (min)	< 1 mm	1 - 5 mm	> 5 mm
H-853SL	600 - 650	30	35	40

Process	Casting Temperature (°C)	Recommended Reductions
Ingot	980 - 1020	Sheet Thickness % 85
Continuous Casting	1000 - 1060	Wire Diameter % 50

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.