

The cost of general material HSS and HSS-Co (Note: Not for medical use and only for reference)

The margin of the material must be as twice as the practical material to use, if you need the material forged to be ideal crystal compactness, and long time wear-resistance of the edge and the sharpness. That is to say, the raw material $\pi R^2 \times \text{thickness} \times \text{density} \times 2 \text{ times} \times \text{unit price}$, that equal to the actual cost of material to use after forging.

◆The cost of general HSS and HSS-Co material work piece

(The raw material blank purchased from Chinese Mainland which has absolute quality assurance for your reference, Please refer the attachment for the instructions of some materials and material types) please refer the attachment for some other instruction of the materials.

And the unit price of the raw material is RMB /kg. (For reference about the cost of different grades of material)

- ①. ASP60A (Grade AA)
(corresponding to the HSS-Co 10.5, the hardness can be up to HRC of $70^\circ \pm 2^\circ$ after treatment).
Ultra high hardness, and high red hardness, the density is approximately 8.30g/Cm³.
The unit prices of the raw material 430-480 RMB/kg, and the unit price of vacuum heat treatment is 75-90 RMB/kg.
 - ②. SKH59C: (Grade A.)
(corresponding with HSS-Co8.0, deal the hardness can be up to HRC $68.5^\circ \pm 2^\circ$) after treatment. Ultra high hardness, and high Red hardness, the density is approximately 8.20g/ Cm³. The unit price of the raw material is 320-350RMB/kg, and the unit price of vacuum heat treatment is 60-75 RMB/kg.
 - ③. SKH57C : (which LZQ has in stock for year round)
(deal the hardness can be up to HRC $67^\circ \pm 2^\circ$ after treatment), with excellent hardness and high red hardness. the density is approximately 8.20 g/ Cm³. The unit price of raw material is 200-250RMB/kg, and the unit price of Vacuum heat treatment is 30-45 RMB/kg.
 - ④. SKH55C: (which LZQ has in stock for year round),
its material with A grade, with excellent hardness and high red hardness, the density is approximately 8.10g/ Cm³. The unit price of raw material is 180-220RMB/kg, and the unit price of vacuum heat treatment is 20-30 RMB/kg.
 - ⑤. SKH51C: (Grade B)
(the hardness can be up to HRC $61^\circ \pm 2^\circ$ after treatment) with general hardness and high red hardness, but with comparably high impact-resistance, tipping-resistance, and fracture-resistance.
The density is approximately 7.95g/ Cm³, the unit price of raw material is 100-120RMB/kg, and the unit price of vacuum heat treatment is 10-15RMB/kg.
 - ⑥. HSS-6542: (Grade C)
(the hardness can be up to HRC $61^\circ \pm 2^\circ$ after treatment) with general hardness and high red hardness, but with high impact-resistance, tipping-resistance, and fracture-resistance. The density is approximately 7.95g/ Cm³, the unit price of raw material is 70-80RMB/kg, and the unit price of vacuum heat treatment is 6-10RMB/kg.
 - ⑦. HSS-9341: (Grade C)
(the hardness can be up to HRC $61^\circ \pm 2^\circ$ after treatment) with general hardness and high red hardness, but with comparable high impact-resistance, tipping-resistance, and fracture-resistance.
The density is approximately 8.0g/ Cm³, the unit price of raw material is 65-75RMB/kg, and the unit price of vacuum heat treatment is 5-8RMB/kg.
 - ⑧. HSS-4341: (Grade D)
(the hardness can be up to HRC $60^\circ \pm 2^\circ$ after treatment) with general hardness and wear-resistance, but with high impact-resistance, tipping-resistance, and fracture-resistance.
The density is approximately 7.90g/ Cm³, the unit price of raw material is 55-65RMB/kg, and the unit price of vacuum heat treatment is 3-6RMB/kg.
 - ⑨. HSS-4241: (Grade D)
(the hardness can be up to HRC $59^\circ \pm 2^\circ$ after treatment) with general hardness and wear-resistance, but with excellent impact-resistance, tipping-resistance, and fracture-resistance.
The density is approximately 7.90g/ Cm³, the unit price of raw material is 45-55RMB/kg, and the unit price of vacuum heat treatment is 3-5RMB/kg.
 - ⑩. HSS-607: (Grade D)
(the hardness can be up to HRC $58^\circ \pm 2^\circ$ after treatment) with comparably weak hardness and wear-resistance,
but with especially excellent impact-resistance, tipping-resistance, and fracture-resistance.
The density is approximately 7.85g/ Cm³, the unit price of raw material is 35-45RMB/kg, and the unit price of vacuum heat treatment is 2-4RMB/kg.
- ASP60A: Imported ultra high wear-resistant high-grade high cobalt powder steel: quenched: HRC70 2 , with excellent wear resistance and impact resistance. Comparing with HSSE\HSS-AL and HSSCo, it has 4~8 times lifetime, and can guarantee uniformity and conformity rate of machined products. It is often applied in general equipment for machining various materials including Ni\Cr\Mo\Si\Ti) that are hard to machine like high alloy\heat-resistant alloy\cast iron of nickel-vanadium-titanium alloy\stainless steel. It is excellent machining tool before heat treatment. It has excellent high temperature machining and comprehensive performance, and allows higher cutting speed. The higher the hardness of machined materials are, the more remarkable the effect would be. Because its roughness is not so good, it is not suitable for discontinuous cutting or for using under processing system of insufficient rigidity, otherwise, Cutter's hit or chip will happen.
- SKH59C : (ultra high wear-resistance)
Imported super wear-resistance high grade high cobalt powder steel: hardening at HRC $68.5^\circ \pm 2^\circ$, with excellent wear-resistance and impact-resistance compare with the material of HSSE, HSS-AL or HSSCo, with more than 4-6 times serving lives, and we are sure of the uniformity and conformity rate of machined products. It is often applied on ordinary equipment to machine various different machining materials (containing Ni, Cr, Mo, Si, Ti etc) like high temperature alloys, heat-resistant alloys, Ni-V-Ti alloys, cast iron, stainless steel etc. before heat treatment. It is machined with high temperature and comprehensive ability, and high cutting speed allowed, the performance would be better if the hardness of the material to use is higher. Owing to the bad tenacity, and it's not suitable for using under non-continuous cutting and the condition of worse steel feature, it would be easy to tipping, !
- SKH57C: (ultra hard)
Specially hard & advanced high cobalt powder steel:
quench hardening at HRC $67^\circ \pm 2^\circ$ (HRA83.3° -85.6°), comparing to HSS, it has 2~4 times or more longer service life .
- SKH55C: (Special Hardness)
Special hardness high Cobalt powder steel, Quench treatment HRC $65^\circ \pm 2^\circ$ (HRA82° -84°),
Moreover HSS have above 2-3time use life. Correspond to ISO M35A.
- HSSE: (The widely using ultra hard type)
Super hard high quality powder steel, hardening at HRC $63^\circ \pm 2^\circ$ degrees.
corresponding to HSS, it has even more ideal wear-resistant and service life