

## SHANGHAI HAILIANG COPPER CO., LTD

## CERTIFICATE OF PRODUCT QUALITY

(Product Name) \_\_\_\_\_

(Customer Name) Etapol Ltd (Alloy No) C12200 (Temper) O60(Dimension) Φ12.7\*0.81 (Specification) ASTM B280 (Order No.) 15HLHK03D112

(Test Items)		(Normal Value)	(Test Value)		Result
			Sample 1		
(Surface)		As per standard	Pass		Pass
(size)	外径 (OD) mm	12.7±0.05	12.69		Pass
	(wall thickness)mm	0.81±0.08	0.75-0.80		Pass
(Clearness) mg/m <sup>2</sup>		≤38	22.55		Pass
(Grain Size) mm		≥0.04	0.040		Pass
(Mechanical Property)	(Tensile Strength) MPa	≥205	239		Pass
	(Elongation) %	≥40	50		Pass
(Expansion Test) α = 60 ° D <sub>1</sub> = 1.4D		No crack when vision	Pass		Pass
(Surface)		Conform To			
(Packing Requirement)		Conform To			
(Marking)		Conform To			
Chemical Composition	Cu	≥99.90	99.96		Pass
	P	0.015-0.040	0.0277		Pass
RESULT	<b>PASS</b>				

*This Product is Certified to be in accordance with the specification.*

(Tel): 0086-21-57532765

( Fax): 0086-21-57532765

Http: //www.hailiang .com.cn

Address: No. 2688, Xinsiping Road, Situan Town, Fengxian District, Shanghai, P. R. China

Award/date: Si Xiao Juan 2016/01/29

Review/date: Xu jian qiang 2016/01/29