

## Special Contract Rules for Copper Grade A

Quality: BS EN 1978:1998 Copper Cathodes (Cathode grade designation Cu-CATH-1)

Element	Composition, % maximum
Cu	-
Ag	0.0025
As	0.0005 <sup>1)</sup>
Bi	0.00020 <sup>2)</sup>
Cd	- <sup>1)</sup>
Co	- <sup>3)</sup>
Cr	- <sup>1)</sup>
Fe	0.0010 <sup>3)</sup>
Mn	- <sup>1)</sup>
Ni	- <sup>3)</sup>
P	- <sup>1)</sup>
Pb	0.0005
S	0.0015 <sup>4)</sup>
Sb	0.0004 <sup>1)</sup>
Se	0.00020 <sup>2)</sup>
Si	- <sup>3)</sup>
Sn	- <sup>3)</sup>
Te	0.00020 <sup>2)</sup>
Zn	- <sup>3)</sup>
Sum of elements listed in this table other than Cu	0.0065

1) (As + Cd + Cr + Mn + P + Sb) maximum 0.0015%

2) (Bi + Se + Te) maximum 0.0003%, of which (Se + Te) maximum 0.00030%

3) (Co + Fe + Ni + Si + Sn + Zn) maximum 0.0020%

4) The Sulphur content shall be determined on a cast sample



Quality: GB/T 467-2010 Copper Cathode (High-Purity Copper Cathode (Cu-CATH-1))

Element Group	Impurity Element	Content, not more than	Total content of element group, not more than
1	Se	0.0020	0.0030
	Te	0.0020	
	Bi	0.0020	
2	Cr	-	0.0015
	Mn	-	
	Sb	0.0004	
	Cd	-	
	As	0.0005	
	P	-	
3	Pb	0.0005	0.0005
4	S	0.0015	0.0015
5	Sn	-	0.0020
	Ni	-	
	Fe	0.0010	
	Si	-	
	Zn	-	
	Co	-	
6	Ag	0.0025	0.0025
Where the total content of the impurity elements listed		0.0065	



Quality: ASTM B115-10 Standard Specification for Electrolytic Copper Cathode (Cathode Grade 1)

Element	Composition, % maximum	Group Total, % maximum
Se	0.0002	0.0003
Te	0.0002	
Bi	0.0001	
Sb	0.0004	
Pb	0.0005	
As	0.0005	
Fe	0.001	
Ni	0.001	
Sn	0.0005	
S	0.0015	
Ag	0.0025	
Maximum allowable total	0.0065	