

**AMENDMENT NO. 1 SEPTEMBER 2017  
TO  
IS 191: 2007 COPPER — SPECIFICATION**

*(Fourth Revision)*

(Page 4, Table 4, Row 1 and Row 2) — Substitute the following for the existing:

**Table 4 Chemical Composition  
(Unless Otherwise Indicated all Limits are in Percentage)**

Designation	Copper + Silver (By Difference), Min	Silver, Max	Copper (Any Silver percent to be counted as Copper), Min	Phosphorus	Arsenic, Max	Antimony, Max	Bismuth, Max	Iron, Max	Lead, Max	Nickel, Max	Oxygen, Max	Selenium, Max	Sulphur, Max	Tellurium, Max	Tin, Max	Zinc, Max	Selenium + Tellurium, Max	Total Impurities, Max
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Cu-CATH-1	—	25 ppm	—	1) —	5 ppm	4 ppm	1 ppm	10 ppm	5 ppm	10 ppm	—	2 ppm	10 ppm	2 ppm	2) —	2) —	3 ppm (including bismuth)	65 ppm (Excluding oxygen)
Cu-CATH-2	99.95	70 ppm	—	—	15 ppm	15 ppm	3 ppm	25 ppm	40 ppm	20 ppm	—	10 ppm	25 ppm	5 ppm	10 ppm	—	—	0.025 (Excluding oxygen)

(Page 4, Table 4) — Insert the following at the end of Table 4:

<sup>1)</sup> (As + Cd + Cr + Mn + P + Sb) Maximum 15 ppm.

<sup>2)</sup> (Co + Fe + Ni + Si + Sn + Zn) Maximum 20 ppm.