

PALLADIUM (PD)-COATED COPPER WIRE FOR BALL BONDING

ABSTRACT

[Problems to be Solved] The present invention is devised so as to solve a problem that a molten ball or an FAB formed in mass production of bonding wire is not uniform in shape. An object of the present invention is to provide a palladium (Pd)-coated copper wire for ball bonding that is easily loosened and can form a molten ball uniform in shape.

[Constitution of Invention] Provided is a palladium (Pd)-coated copper wire for ball bonding, the palladium (Pd)-coated copper wire having a copper (Cu) or copper-alloy core and a palladium (Pd) coating formed on the core and having a wire diameter of 10 to 25 μm , including a solid palladium (Pd) layer solely consisting of solid palladium (Pd), the solid palladium (Pd) layer being present in the palladium (Pd) coating, and a copper (Cu)-exuded layer formed of copper (Cu) exuded from the core, the copper (Cu)-exuded layer being formed on the palladium (Pd) coating, a surface of the copper (Cu)-exuded layer having been oxidized. Also provided is a palladium (Pd)-coated copper wire for ball bonding, the palladium (Pd)-coated copper wire having a copper (Cu) or copper-alloy core, having a palladium (Pd) coating and a gold (Au) skin layer on the core, and having a wire diameter of 10 to 25 μm , the palladium (Pd)-coated copper wire including a copper (Cu)-exuded layer, the copper (Cu)-exuded layer being formed on the gold (Au) skin layer, a surface of the copper (Cu)-exuded layer having been oxidized, and a solid palladium (Pd) layer solely consisting of solid palladium (Pd), the solid palladium (Pd) layer being present in the palladium (Pd) coating.

[Figure] Fig. 1