

74.06 - Copper powders and flakes.

7406.10 - Powders of non-lamellar structure

7406.20 - Powders of lamellar structure; flakes

This heading covers copper powders as defined in Note 8 (b) to Section XV and copper flakes, **other than** cement copper (precipitated copper) which is a black powder of heading 74.01. Subject to the provisions of Note 7 to Section XV, it also covers copper powders mixed with other base metal powders (e.g., "bronze powder" consisting of a simple mixture of copper and tin powders).

Copper powders are mainly produced by electrodeposition or by atomisation (i.e., by injecting a thin stream of molten metal into a high-velocity cross-jet of water, steam, air or other gases).

In addition to the above two main processes, copper powders may also be produced on a smaller scale by gaseous reduction of finely divided oxides, precipitation from solutions or by comminution of solids. Powders of lamellar structure and flakes are normally produced by grinding foil. The lamellar shape can be seen by the naked eye or through a magnifying glass in the case of flakes, but a microscope is needed for true powders.

The method of manufacture determines such characteristics as the particle size and shape (which may be more or less irregular, globular, spherical or lamellar). Powders with a lamellar structure are often polished and may retain traces of greasy or waxy substances (e.g., stearic acid or paraffin wax) used in the course of their preparation.

The powders are used for compacting and sintering into bearings, bushings and many other technical components. They are also used as chemical or metallurgical reagents, for soldering and brazing, in the manufacture of special cements, for coating non-metallic surfaces as a basis for electroplating, etc. The flakes are mainly used as a metallic pigment in the manufacture of inks and paints. The flakes are used directly as metallic colouring matter by blowing them, e.g., on to a varnished surface to which they adhere.

The heading **does not cover** :

- (a) Certain powders or flake-powders used in the preparation of paints and sometimes known as "bronzes" or "golds" but which are in fact chemical compounds, such as certain antimony salts, tin disulphides, etc. (**Chapter 28**, or **Chapter 32** if in the form of prepared paints).
- (b) Powders or flakes, prepared as colours, paints or the like (e.g., made up with other colouring matter or put up as suspensions, dispersions or pastes, with a binder or solvent) (**Chapter 32**).
- (c) Copper shot of heading 74.03.
- (d) Spangles cut from copper foil (heading 83.08).