

# CASTREE KILNS

[www.castreekilns.co.uk](http://www.castreekilns.co.uk)

## CUDOX TUBES

### Description

Cudox Tubes are copper tubes containing a high grade de-oxidant in granular form, pre-packed in measured amounts and for treating copper based alloys.

### Function

Cudox Tubes are used to deoxidize bronzes following melting under oxidising conditions. They may also be used in small quantities to aid fluidity in brasses. Precise control of the addition is important to achieve full de-oxidation of the melt without making an excessive addition (which could lead to metal-mould reaction).

Although phosphor-copper cake can be used as a satisfactory de-oxidant, it is not the best or the cheapest way of adding phosphorus because some is volatilised and some lost within the dross while the cake slowly melts. It is also difficult to add in precise amounts, which is essential if gas-free metal is to be obtained.

**Cudox Tubes should not be used for treating high conductivity copper as phosphorus decreases electrical conductivity.** Calcium Boride or Lithium based de-oxidants should be used for this application.

### Amount to Use

Cudox 31	up to 25Kg of metal
Cudox 42	25Kg - 50Kg of metal
Cudox 56	50Kg - 75Kg of metal

These amounts may vary depending on the state of oxidation of the melt e.g. if an induction furnace is used, the above rates have to be doubled.

### Recommended Application

Skim the surface of the molten metal to ensure it is clean and free from dross. Insert the Cudox Tube into a hollow graphite plunger and plunge it into the melt. Alternatively the Cudox Tube can be wired to a steel rod or a graphite sheathed rod and plunged quickly into the melt with a downward thrust.

As a further alternative, the tubes may be placed on the bottom of the casting pot and metal teemed from the melting furnace into the tubes.

After the addition, stir the metal quickly, skim and pour when it reaches the correct casting temperature.

### Packaging

Cudox Tubes are packed in a range of sizes, which make varying required amounts of de-oxidant readily available, i.e. No.31, No.42, and No.56. All three sizes are packed 100 tubes per carton.

### Health and Safety

This product is non-hazardous.