



PROTEC 2000 COPPER TUBE EN 1057

INTRODUCTION

Protec 2000 is a brand name for Wednesbury Polyethylene coated copper tube, the inner surface of which is castellated to provide air gaps which run the length of the tube. These gaps trap air which forms a thermal barrier to reduce surface temperature, transmitted noise and condensation levels, together with a reduction of heat loss when buried.

The copper tube coated with Polyethylene is to EN 1057. This standard specifies the requirements for copper tubes in straight length to half hard, hard temper or coils in the annealed condition.

The tube is manufactured from phosphorus deoxidised (non arsenical) copper alloy CW024A and the plastic to BS 3412. Tube complying to these tables is suitable for hot and cold water services, gas services, sanitation and central heating. These tubes when plastic coated, will withstand temperatures of up to 95°C (203°F) with occasional peaks of up to 110°C (230°F). The plastic is tightly extruded on to the copper tube in a seamless



and continuous run. It is durable and more effective than some other methods of protection against environments which may be aggressive to the copper tube.

APPROVAL

Wednesbury Tube EN1057 conforms to the requirements of the British Standards Institution and has earned the right to use the Kitemark as evidence of compliance of these tubes to the British Standard EN 1057 and have Registered Firm status to BS EN ISO 9001 : 2008 : FM 00452.

MARKING

Tube from 15mm to 28mm inclusive is permanently marked 'Wednesbury STREAMLINE GB (Kitemark) EN 1057' at intervals of 1000mm. The copper tube is prominently die marked in a similar manner together with the date of manufacture, to the relevant Label.

FINISHES	15	22	28	35	42	54					
Protec 2000 White	•	•	•								



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JOINTING

These tubes are suitable for connecting by means of capillary or compression fittings to BS EN 1254, silver brazing, bronze or autogenous welding. When jointing cut the plastic and fold back (see photograph), make joint and return the plastic to its original position, cover split plastic and joint with an impervious plastic tape to give continuous protection.

BENDING

Protec 2000 annealed tube can be bent with ease, on bending machines or with internal springs. Bending machines are available with formers designed to accommodate the increased diameter for Protec 2000 from Hilmor, tubela, Consort and Rothenburger etc. These

Dimensions

Size of tube mm	Nominal Diameter Plastic mm	Nominal Thickness Plastic mm
15	19	2.00
22	26	2.00
28	33	2.50

machines are recommended for use with soft temper copper tube. If in doubt, refer to the bending machine manufacturer. Manufacturers of bending machines are able to supply hand or free standing machines of this type. Bending by spring is normally limited to a maximum size of 22mm diameter.

Internal springs are available for tube up to this size but tight radii bends are not advised.



Fold back to reveal copper.

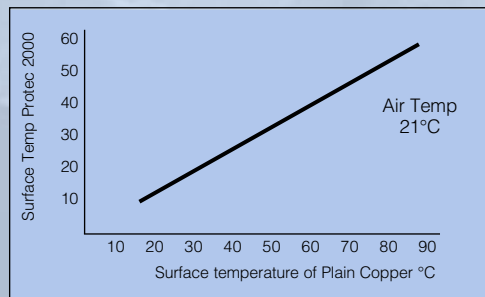


Be sure not to aim the blowtorch directly at the plastic

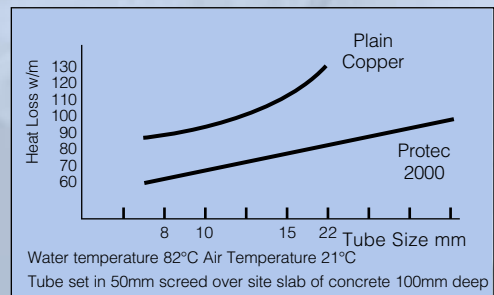


When the joint is complete and cool, fold back the plastic coat and wrap the joint to give continuity of protection.

The graph below indicates the lower surface temperatures of Protec 2000 measured against bare copper in air



The graph below indicates the reduction in heat loss which can be achieved by using Protec 2000



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