

# PRODUCT DATA SHEET

## Metrode Met-Bronze PT8



Metrode Met-Bronze PT8 is a basic coated electrode that gives a typical tin/phosphorous bronze deposit of 92% copper and 6% tin. It is used to weld a number of copper-based alloys to themselves and to steels or cast irons. It is also used to weld overlay shafts and engineering components to give a bronze bearing surface and/or corrosion resistant layer. Embrittlement is caused by chromium pick-up and stainless steels should be avoided. This alloy is not recommended for applications where

bend tests are required in procedure qualifications because weld metal of this type has limited ductility. Solid wire TIG/MIG welding processes are preferable for high integrity welds.

### Re-baking

Re-dry if damp 150°C for 2 hours.

### Materials to be Welded

<b>Tin bronze</b>	(Phosphorous bronzes with up to 10% tin and 0,5% phosphorous), eg. UNS C50700, C51900, C52100
<b>Bell metal</b>	(Copper + 20 - 25% zinc )
<b>Brasses</b>	(Copper + 5 - 40% zinc )
<b>Manganese bronzes</b>	(Copper + 38% zinc and 1 - 2% manganese)

### Classifications

AWS	A5.6	ECuSn-A (nearest)
DIN	1733	EL-CuSn7 (nearest)
DIN	8555	E30-UM-150-CNR (for overlays)

### Typical Chemical Analysis (All weld metal)

% <b>Copper</b>	Bal.	% <b>Phosphorous</b>	0,05 - 0,35
% <b>Tin</b>	5,0 - 8,0	% <b>Iron</b>	0,5 max

\* DIN has 1,0 - 2,0% manganese

### Typical Mechanical Properties (All weld metal in the as welded condition)

<b>0,2% Proof Stress</b>	120 MPa
<b>Tensile Strength</b>	300 MPa
<b>% Elongation on 4d</b>	20
<b>Hardness</b>	100 HV

### Packing Data

Diameter (mm)	Electrode Length (mm)	Current (A)	Pack Mass (kg)	Item Number
2,5	350	60 - 90	5,0	W076132
3,2	350	90 - 110	5,0	W076133
4,0	350	110 - 130	5,0	W076134

Sealed in metal tins

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