## **COPPER ALLOY JM 3**

CuSn12-C

## **COMPOSITION**

Density 8,8

|     | Composition %   |      |                 |      |     |                 |                |     |      |     |                 |     |
|-----|-----------------|------|-----------------|------|-----|-----------------|----------------|-----|------|-----|-----------------|-----|
|     | Cu <sup>1</sup> | Sn   | Al <sup>3</sup> | Fe   | Mn  | Ni <sup>1</sup> | P <sup>2</sup> | Pb  | s    | Sb  | Si <sup>2</sup> | Zn  |
| Nom | 88              | 12   |                 |      |     |                 |                |     |      |     |                 |     |
| Min | Bal             | 11,0 |                 |      |     |                 |                |     |      |     |                 |     |
| Max | Bal             | 13,0 | 0,01            | 0,25 | 0,2 | 2,0             | 0,4            | 1,0 | 0,05 | 0,2 | 0,01            | 0,5 |

- Including Nickel
   For centrifugal- and continuous castings the P contents may be max 1,5% by agreement.
   Al + Si max 0,01%

## **MECHANICAL PROPERTIES**

| Rp0,2<br>Rm<br>A5<br>HB<br>E | Proof strength Tensile strength Elongation Hardness Young's modulus Coeff. of thermal expansion Thermal conductivity | N/mm <sup>2</sup><br>N/mm <sup>2</sup><br>%<br>10/1000<br>N/mm <sup>2</sup><br>X10 <sup>-6</sup> ,0-100°C<br>W/m °C | Sandcast  JM3-03 >=130 >=240 >=7 >=80 100 000  17,4 50 | Centrifugally- & continuously cast  JM3-15  >=150 >=270 >=5 >=90 100 000  17,4 50 |  |  |
|------------------------------|--|---|--|---|--|--|
|                              | Resistivity<br>Skärbarhet<br>Machinability   | nΩm,20°C  | 200<br>Very good                                       | 200<br>Very good  |  |  |
| Nearest                      | equivalent standards   |   |  |   |  |  |
| Swedish standard             |  | SS-EN 1982  | CC483K-GS  | CC483K-GC/GZ  |  |  |
| European standard            |  | EN 1982   | CC483K-GS  | CC483K-GC/GZ  |  |  |
| US stan                      | dard   | UNS   | C 90800  | C 90800   |  |  |
| British                      | standard (old)   | BS  | 1400 PB2   | 1400 PB2  |  |  |
| German                       | standard (old)   | DIN   | 1705, G-CuSn12   | 1705, GZ/GC-<br>CuSn12  |  |  |