# AB1 AS-1565 Grade C95210 (ALUM BRONZE)

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**SAND CASTINGS**

## ABOUT

AB1 has good strength and wear resistance.
AB1 has reasonable machining properties (compared to AB2)
AB1 retains good physical properties at elevated temperatures.
AB1 has good corrosion resistance.

## EQUIVALENT / SIMILAR *TO

| | |
|---|---|
| Britain | BS1400 AB1-C |
| USA | ASTM B505-B271-C95200* |
| Japan | JIS 5121 CAC701C (ALBC1C*) |
| Germany | DIN 17656 CuAl10Fe* |

## NOMINAL CHEMICAL ANALYSIS

| CHEMICAL COMPOSITION (Maximum % Unless Otherwise Listed) | | | | | | | | | OTHER ELEMENTS (*NOTES) |
|---|---|---|---|---|---|---|---|---|---|
| Copper Cu | Tin Sn | Zinc Zn | Nickel Ni | Lead Pb | Phos P | Alum Al | Iron Fe | Mang Mn | |
| 86 min | 0.10 | 0.50 | 1.0 | 0.05 | | 8.5-9.5 | 2.5-4.0 | 1.0 | *Ni max. incl. Co. |

## MECHANICAL PROPERTIES

| TENSILE (MPa) | | ELONGATION (5-65/50% MIN.) | | .2% PROOF (MPa) | | HARDNESS (NB) | |
|---|---|---|---|---|---|---|---|
| Sand Cast | | Sand Cast | | Sand Cast | | Sand Cast | |
| 450 | | 20 | | 170 | | 90 | |

| | |
|---|---|
| Compressive Strength 0.1% Permanent Set | 100 MPa (15,000 psi) |
| Specific Gravity | 7.6 |
| Machinability Rating (Free Machining Brass=100) | 60 |
| Max. Operating Temperature | 260oC (500oF) |
| Stress Relieving Temperature | 315oC (600oF) |
| Time at Temperature | 1 hour per 25mm of section thickness |

## ADVANTAGES OF CONTINUOUS CAST

Reduced Machining allowance, excellent mechanical properties. Complete freedom from gas and porosity, ensuring very good pressure tightness. 3 – 3.5 metre feed stock for machining

## APPLICATIONS

- Bearings
- Wear Plates
- Pumps
- Marine, Chemical, Aircraft Parts
- Valves
- Rock Drill Parts
- Crusher Bearings
- Hose Nozzles
- Irrigation Equipment
- Rollers
- Washers
- Wear Rings