

SM335 (C26800)

CuZn35

Alloy characteristics

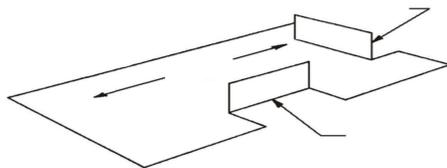
SM335 is a full Alpha phase brass alloy with very good formability and bendability. This alloy has better formability and bend properties as compared to CuZn37 as it is completely free of the brittle Beta phase, but has inferior formability and drawing properties when compared to CuZn30.

However, when the combination of strength and formability requirements is not very severe this alloy is an excellent choice from performance and cost efficiency point of view.

Mechanical properties

| | M20 | H01 | H02 | H03 | H04 | H06 | H08 | H10 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| Tensile strength in N/mm ² | 275-345 | 340-405 | 380-450 | 430-500 | 470-540 | 545-610 | 590-655 | 620-685 |
| 0,2% yield strength in N/mm ² | - | >170 | >250 | >320 | >370 | >450 | >520 | >550 |
| Vickers hardness HV (ref. val) | - | 87-116 | 106-136 | 140-158 | 148-168 | 174-186 | 186-200 | >190 |
| Elongation A _{L50%} | > 40 | > 35 | > 28 | > 20 | >3 | - | - | - |

Bending metals is one of the most common practices in metal processing worldwide. It is a process by which metal can be deformed when applying force to the subject, which causes it to bend at an angle and form the anticipated shape, which often results in it being in a 'V' or a 'U' shape.



| | | | | | | | | | |
|------------|------------|---------|---------|---------|---------|---|---|---|---|
| s ≤ 0.60mm | Transverse | 0.0 x t | 0.0 x t | 0.0 x t | 0.5 x t | - | - | - | - |
| | Parallel | 0.0 x t | 0.0 x t | 0.0 x t | 0.5 x t | - | - | - | - |

Physical properties (Typical values in annealed temper at 20 °C)

| | | |
|--|-------|---------------------|
| Thermal expansion coefficient 20 ... 300 °C | 19.9 | 10 ⁻⁶ /K |
| Specific heat capacity | 0.377 | J/(g·K) |
| Density | 8.50 | g/cm ³ |
| Thermal conductivity | 121 | W/(m·K) |
| Thermal coefficient of electrical resistance (0 ... 100 °C) | 1.6 | 10 ⁻³ /K |
| Modulus of elasticity (1 GPa = 1 kN/mm ²) cold formed | 112 | GPa |
| Electrical conductivity (IACS) | 26 | % |

Material designation

| | |
|-----|--------|
| UNS | C26800 |
|-----|--------|

Chemical composition

| Cu | Rest % |
|----|--------|
|----|--------|

This information was given with the best knowledge, but cannot guarantee any characteristics we describe listed above. The contract terms of Sofia Med agreed with any individual customer and our general conditions of sales

| | |
|----|---------|
| Pb | <0.05 % |
| Fe | <0.05% |
| Zn | 32-36 % |

*describe the liability of these conditions.
In any case do we reserve the right by technical development or any other reason to modify this sheet according to our needs. This data sheet is part of a technical modification service done case by case.*