

AW-6082/AISIMgMn

Applications:

Elements subjected to high mechanical stress, engineering structures.

Naval construction, vehicle construction, household appliances, electrical industry and precision parts.

This alloy is not subject to aeronautical inspection.

Characteristics:

High mechanical resistance.

High resistance to the corrosion.

Easy forming.

Good weldability with filler metal.

Very good polishing ability.

Suitable for decorative anodizing.



Technical information

| Composición Química (% PESO) | | | | | | | | | | | |
|---|---|-----------|--------------|-----------|-----|------|----|-----|-----|-------|------------|
| Elementos | Si | Fe | Cu | Mn | Mg | Cr | Ni | Zn | Ti | Al | Otros Cada |
| Min. | 0.7 | | | 0.4 | 0.6 | | | | | | |
| Max. | 1.3 | 0.5 | 0.1 | 1 | 1.2 | 0.25 | | 0.2 | 0.1 | Resto | |
| POSIBILIDADES DE APLICACIÓN Y UTILIZACIÓN | | | | | | | | | | | |
| Estado metalúrgico | | | | | | | | | | | |
| | Criterios | Recocido | Temp. Soluc. | Madurado | | | | | | | |
| CORROSIÓN | Resistencia a atmósfera normal | Buena | Excelente | Excelente | | | | | | | |
| | Resistencia a atmósfera industrial y marina | Media | Buena | Buena | | | | | | | |
| | Conductividad eléctrica | Excelente | Buena | Buena | | | | | | | |

| | | | | | | | | | | | | | |
|----------------------------------|-------------------------------------|--------------|-----------------|-------------|--------------------|-----------------------------|------------------|------------------|--|--|--|--|--|
| TRATAMIENTO SUPERFICIE | Abrillantado | Excelente | Excelente | Excelente | | | | | | | | | |
| | Anodizado industrial | Excelente | Excelente | Excelente | | | | | | | | | |
| | Anodizado decorativo | Medio | Bueno | Bueno | | | | | | | | | |
| CONFORMADO | Plegado en caliente | Excelente | Excelente | Excelente | | | | | | | | | |
| | Plegado en frío | Excelente | Medio | Muy bajo | | | | | | | | | |
| | Embutido / Repulsado | Excelente | Bajo | No usado | | | | | | | | | |
| | Forjado | Bueno | No usado | No usado | | | | | | | | | |
| | Mecanizado | Malo | Bueno | Bueno | | | | | | | | | |
| ENSAMBLAJE | Soldadura bajo atmósfera protectora | Excelente | Excelente | Excelente | | | | | | | | | |
| | Soldadura por resistencia | Excelente | Excelente | Excelente | | | | | | | | | |
| CARACTERÍSTICAS MECÁNICAS | | | | | | | | | | | | | |
| Estado Metalúrgico EN | Espesor (mm) | | Rm (Mpa) | | Rp0.2 (Mpa) | Fact. Pleg. Min.Int. | | Alargam % | | | | | |
| | desde | hasta | min. | max. | min. | 180 grados | 90 grados | A50 | | | | | |
| 0 | 0.4 | 1.5 | - | 150 | 85 | 1 | 0.5 | 14 | | | | | |
| | 1.5 | 3 | - | 150 | 85 | 1 | 1 | 16 | | | | | |
| | 3 | 6 | - | 150 | 85 | - | 1 | 18 | | | | | |
| | 6 | 12.5 | - | 150 | 85 | - | 2 | 17 | | | | | |
| T4 | 0.4 | 1.5 | 205 | - | >110 | 3 | 1.5 | 12 | | | | | |
| | 1.5 | 3 | 205 | - | >110 | 3 | 2 | 14 | | | | | |
| | 3 | 6 | 205 | - | >110 | - | 3 | 15 | | | | | |
| | 6 | 12.5 | 205 | - | >110 | - | 4 | 14 | | | | | |
| T6 | 0.4 | 1.5 | 310 | - | >260 | - | 2.5 | 6 | | | | | |
| | 1.5 | 3 | 310 | - | >260 | - | 3.5 | 7 | | | | | |
| | 3 | 6 | 310 | - | >260 | - | 4.5 | 10 | | | | | |
| T651 | 6 | 12.5 | 300 | - | >240 | - | 6 | 9 | | | | | |
| | 12.5 | 40 | 295 | - | >240 | - | - | 8 | | | | | |
| | 40 | 80 | 295 | - | >240 | - | - | 7 | | | | | |
| | 80 | 100 | 290 | - | >240 | - | - | 6 | | | | | |
| | 100 | 150 | 275 | - | >240 | - | - | 4 | | | | | |
| | 150 | 175 | 275 | - | >230 | - | - | 4 | | | | | |