Airware® 2098-T8 sheet

DESCRIPTION

Constellium patented Airware® 2098-T8 is a low density aluminum-based alloy designed to provide a balanced combination of high strength, fatigue resistance and fracture toughness for aerospace applications. Leveraging aluminium's infinite recyclability without property losses, Airware® 2098 can be repeatedly recycled.

APPLICATIONS

Airware® 2098 sheets are optimized for static-driven components, such as fuselage webs and doublers, as well as roll formed stringers and frames or replacement of certain titanium structures. Thanks to its low density, increased stiffness and high mechanical strength compared to incumbent alloys, considerable weight reductions can be achieved.

MECHANICAL PROPERTIES

| Temper | DIR | T851 |
|---|-----|----------------|
| Tensile strength MPa (ksi) | LT | 510 (74) min |
| Yield strength MPa (ksi) | LT | 476 (69) min |
| Elongation A5,65 √ % | LT | 6 min |
| Stress Corrosion Cracking MPa (ksi) ASTM G47 | LT | 350 (50.7) max |

CHEMICAL COMPOSITION LIMITS (WT %)

| Si | 0.12 max |
|----|-------------|
| Fe | 0.15 max |
| Cu | 3.2 - 3.8 |
| Mn | 0.35 max |
| Mg | 0.25 - 0.80 |
| Ag | 0.25 - 0.60 |
| Li | 0.8 - 1.3 |
| Zr | 0.04 - 0.18 |
| Ti | 0.10 max |
| | |

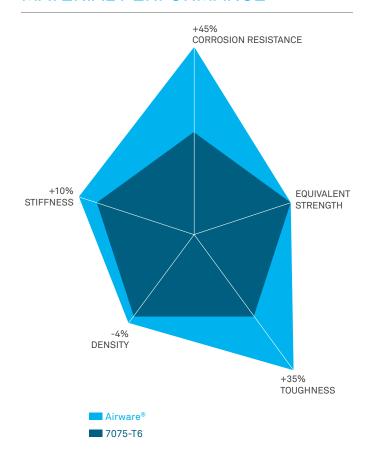
(According to The Aluminium Association)

TEMPER

The T8 temper is achieved using a conventional one step aging treatment. For forming operations, please consult Constellium for availability of high formability tempers (T3/T3S).



MATERIAL PERFORMANCE



EASE OF MANUFACTURING

Airware® 2098 can be welded using conventional processes as well as advanced Friction Stir Welding technologies.

Constellium patented recycling process permits 100% recycling of off-cuts and machining chips resulting from the manufacturing process.

AVAILABILITY

Airware® 2098-T8 is available in the thickness range from 3.2-6.3mm (0.125-0.249in).

PROCUREMENT SPECIFICATIONS

Airware® 2098-T8 is covered by AMS 4457 and MMPDS. Material Safety Data Sheet, A and B-values and a full data package are available on request.

INFORMATION

For additional information, please contact us via email: salesat@constellium.com.

The present brochure is not contractual, and shall, in no way, incur the liability of Constellium on account of the information contained herein. This information is given purely as a guide; it is up to the readers to check that it is accurate and to consult Constellium and other specialists before use.





