

Airware[®] 2065-T84 Extrusions

CHEMICAL COMPOSITION LIMITS (WT %)

DESCRIPTION

Constellium patented Airware[®] 2065-T84 is a low density aluminium-based alloy developed for extruded products to provide very high strength and excellent corrosion resistance. Leveraging aluminium's infinite recyclability without property losses, Airware[®] 2065 can be repeatedly recycled.

APPLICATIONS

Low density, high stiffness, very high strength and good damage tolerance make Airware[®] 2065 extrusions a very attractive choice for applications such as cargo beam. Airware[®] 2065-T84 extrusions are recommended as stiffeners in compression driven structures, such as upper wing stringers.

MECHANICAL PROPERTIES

Thickness mm (in)	Direction	1.0-6.0 mm (0.04-0.249 in)	6.0-12.5 mm (0.25-0.499 in)
Tensile strength MPa (ksi)	L	600 (87)	600 (87)
Yield strength MPa (ksi)	L	570 (83)	580 (84)
Elongation %	L	6	6
Density g/cm ³ (lb/cm ³)	-	2.7 (0.097)	2.7 (0.097)
Stress corrosion cracking MPa (ksi) (ASTM G 47)	LT	400 (58)	400 (58)

(Guaranteed minimum properties)

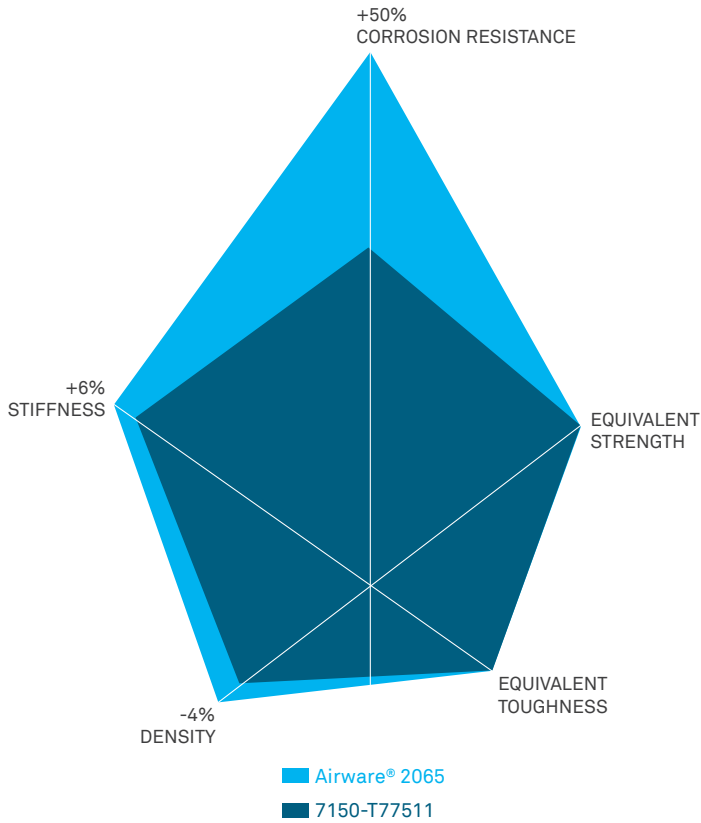
Si	0.10 max
Fe	0.10 max
Cu	3.8 - 4.7
Mn	0.15 - 0.50
Mg	0.25 - 0.8
Zn	0.30 max
Ti	0.10 max
Ag	0.15 - 0.50
Li	0.8 - 1.5
Zr	0.05 - 0.15

(According to The Aluminium Association)

TEMPER

T84 temper uses a standard aging treatment allowing age forming.

MATERIAL PERFORMANCE



EASE OF MANUFACTURING

Airware® 2065 can be welded using conventional processes (e.g. Laser Beam Welding) as well as Friction Stir Welding technologies.

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

AVAILABILITY

Airware® 2065 is available in the thickness range of 1 to 12.5 mm (0.04 to 0.499 in). For higher thicknesses, including wing stringers, contact your Constellium representative.

PROCUREMENT SPECIFICATIONS

Airware® 2065 is covered by AMS4366. Material Safety Data Sheet 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.

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