Constellium

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Technical Datasheet

ANTICORODAL®-110

EN AW-6082 / Al Si1MgMn

Edition January 2012

BRIEF DESCRIPTION

Anticorodal® -110 is a medium strength alloy with good corrosion resistance, mechanical strength and welding properties.

The combination of these three properties enables it to be used for machine parts and welded constructions.

PROCESSING METHODS

Weldability

- TIG/MIG — excellent
  filler alloy — AA 4043, AA 5356
- by resistance — excellent

Anodizing

- technical — excellent
- decorative — good

Machinability — good

Corrosion behaviour

- excellent in inland atmosphere
- good in marine atmosphere

AVAILABILITY

Anticorodal® -110 plates are available in temper T651 (quenched – stretched - artificially aged) in the following dimensions :

Thickness (over … to)	**Max. width**
3.9 - 7.0 mm	2100 mm
7.0 - 8.0 mm	1550 mm
8.0 - 102 mm	2250 mm
102 - 123 mm	2020 mm
123 - 150 mm	1850 mm

(other dimensions on request)

CHEMICAL COMPOSITION (weight %)

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti +Zr
0.7 1.3	max. 0.5	max. 0.1	0.4 1.0	0.6 1.2	max. 0.25	max. 0.2	-

PHYSICAL PROPERTIES (nominal values)

Density	2.70 g/cm^3
Elastic modulus	69000 MPa
Lin. thermal expansion coefficient (20°-100°C)	23.4 10^{-6} K^{-1}
Thermal conductivity (Temper T651)	150 - 170 W/mK
Electrical conductivity (Temper T651, 20°C)	24 - 28 MS/m

MECHANICAL STRENGTH

Min. tensile properties (Temper T651 / EN Standard 485-2)

Thickness (over ... to)	Rm [MPa]	Rp0.2 [MPa]	A50 [%]
3.9 - 6.0 mm	310	260	10
6.0 - 12.5 mm	300	255	9
12.5 - 60 mm	295	240	8
60 - 100 mm	295	240	7
100 - 150 mm	275	240	6

Typical strength for various thicknesses

Thickness (over ... to)	Rm [MPa]	Rp0.2 [MPa]	A50 [%]	HB
3.9 - 8.0 mm	335	295	14	105
8.0 - 25 mm	350	305	11	105
25 - 60 mm	350	310	11	105
60 - 150 mm	350	310	11	105