MATERIAL DATA SHEET

Aluminium – Sheet Fabrication

DEK Reference ID:

DSM 2.1.10

Material Name EN:

EN AW-5251

Material Group:

Aluminium Alloy with major alloying element: Mg

Characteristics:

Very good corrosion resistance to seawater and marine and industrial atmosphere. Very good weldability. Medium high fatigue strength. Good cold formability.

Chemical Composition (subset C, Si, Mn, Cr, Ni):

Si (%) – Min	Si(%) – Max	Fe(%) – Max	Cu(%) – Max	Mn (%) – Min	Mn (%) – Max	Mg (%) – Min	Mg (%) – Max	Cr (%) – Min	Cr (%) – Max	Zn (%) – Max
-	0.40	0.50	0.15	0.10	0.50	1.70	2.40	-	0.15	0.15

Properties:

Density (g/cm3)	Young's modulus (GPA)	Yield Stress YS Min MPa	Yield Stress YS Max MPa	Tensile Strength TS Min MPA	Tensile Strength TS Max MPA	Elongation A (%)
2.69	70	120	160	190	230	4-8

Temper Types:	Preferred Temper Types are in:
0	Soft, fully annealed
H22	Work hardened by rolling then annealed to quarter hard.
H24	Work hardened by rolling then annealed to half hard.
H26	Work hardened by rolling then annealed to three quarter hard.
Note:	The temper condition must be added to the drawing:- **DSM 2.1.10_H22**

Material Safety Data Sheet:

MSDS Series 5xxx.pdf

Approved Comparison Standards:

ISO:	***Al-Mg2***
German:	***DIN AlMg2Mn0,3***
German:	***DIN 3.3525***
American:	***AA5251***
Japanese:	***A5251***

Alternatives:

The vendor may substitute this material for DSM 2.1.13 at an equivalent temper state without prior permission from ASM unless otherwise stated on the engineering drawing. Any substitution must be recorded on the first article for the component to which it applies.

Issue	01	02	03	04	05	06	07	08	09
Date	7135	30040	44721	09/07/21					