



**CNC DIRECT**

SUPPLIERS OF QUALITY CNC MACHINES & ACCESSORIES



## Aluminium Formodal ®023 Properties and Applications

### Alloy designation:

EN AW	5083
EN AW	Al Mg4,5 Mn0,7
Old designation	Al Mg4,5 Mn
Material no. according to DIN	3.3547
Great Britain BS	N8
Italy UNI	7790
Spain	L-3321
Sweden	144140
Norway	17215
France AFNOR	A-G4,5MC
Colour code	RAL 8002 Signal Brown

### Typical physical properties:

Density [g/cm <sup>3</sup> ]	2,66
Elastic modulus [GPa]	70
Thermal conductivity [W/m*K]	110-140
Thermal expansion Coefficient [K <sup>-1</sup> 10 <sup>-6</sup> ]	-50°C - 20°C
	20°C - 100°C
	20°C - 200°C
	20°C - 300°C
Specific heat J/(kg*k)	900
Electrical conductivity [m/Ω*mm <sup>2</sup> ]	16-18
Shear modulus [GPa]	

### Chemical composition<sup>x</sup> (EN 573-3):

Specifications in %												Remainder: Aluminium		Other	
Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ga	V	Note	Individual	Total <sup>2</sup>		
0,40	0,40	0,10	0,40 - 1,0	4,0 - 4,9	0,05 - 0,25	-	0,25	0,15	-	-	-	0,05	0,15		
<sup>x</sup> Chemical specifications as perc. of weight. If no ranges are specified, the alloy content has the maximum value															
<sup>2</sup> Includes all items listed for which no limit values are specified															

### Special features of this material:

- Very good machinability
- Excellent corrosion resistance
- Good welding properties
- Low stress and dimensionally stable

### Applications:

- Toolmaking, mould making and model making
- Blow moulds and injection moulds
- Laminating tools
- Moulds for elastomer materials
- Moulds and heat-stressed parts
- Moulds with welded construction
- Refrigeration technology

### CNC DIRECT LTD & HIGH GRADE METALS LTD

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# Aluminium Formodal ®023 Sizes Stocked

## 5083 Cast Plate – Saw cut

75mm x 2000 x 1000

85mm x 2000 x 1000

95mm x 2000 x 1000

105mm x 2000 x 1000

115mm x 2000 x 1000

125mm x 2000 x 1000

135mm x 2000 x 1000

150mm x 2000 x 1000

200mm x 2000 x 1000

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