

# **CAL5<sup>®</sup>**

## **Precision Face-Machined Cast Tooling Plates**



**metalweb**

---

**metalweb are pleased to offer its brand new range of face-machined cast tooling plate for the first time in the UK market.**

Manufactured exclusively for metalweb this 5000 series based alloy plate is machined to industry standard thickness and flatness tolerances. Using special machining equipment with heads designed to match our specifications, we are able to offer aluminium cast plates with a precision Ra 0.4  $\mu\text{m}$  finish. The plates have a thickness tolerance of  $\pm 0.10$  mm and very good flatness values.

**Advantages of metalweb CAL5<sup>®</sup> plate:**

- High tensile strength
- Good ductility
- Especially heat treated to obtain stress free condition, annealing after machining is not required
- Regular fine grain structure
- Excellent corrosion resistance
- Very good machinability
- Very good weldability
- Good anodizing (not decorative) and hardcoating properties

**metalweb CAL5<sup>®</sup> plate has a range of applications including:**

- Jigs and fixtures
- Precision parts
- Electronic mounting plates
- Modelling boards
- Pattern plates
- Plastic moulds

metalweb offer a range of "tooling plate" solutions including other specialist cast, rolled and mould plate products. For details and availability – or for advice on what to select for your chosen application – please enquire (contact details on back cover).



## Sizes Available

metalweb CAL5<sup>®</sup> is available in a range of sizes.

**Thickness range:** 6.35mm (¼") up to 50.8mm (2")

**Maximum standard length is:** 3670.3mm (144½")

**Maximum standard width is:** 1841.5mm (72½")

*Non-standard dimensions are available at additional charges. In addition metalweb has a range of specialist processing equipment to cut plates to the exact size required.*

## Mechanical and Physical Properties

	S.I. Units	Imperial Units
Yield strength $R_{p0.2}$	[MPa]	125
Ultimate tensile strength $R_m$	[MPa]	275
Elongation $A_5$	[%]	15
Module of elasticity	[GPa]	70
Brinell hardness HBS	[2.5/62.5]	75
Density	[g/cm <sup>3</sup> ]	2.66
Coefficient of thermal expansion	[k <sup>-1</sup> ]	23.3 x 10 <sup>-6</sup>
Thermal conductivity	[W/m • K]	110-130
Electrical conductivity	[m/W • mm <sup>2</sup> ]	16.2
Specific heat (25°-100° C)	[J/kg • K]	900

## Chemical compound of CAL5<sup>®</sup>:

**Magnesium** 4-5%

**Manganese** <1%

**Other** 1.5%

**Aluminium** Rest

## Dimensional Tolerances

Thickness	Flatness*	Thickness tolerance
(mm)	(mm)	(mm)
6.35-12.7	≤ 0.40	± 0.10
>12.7	≤ 0.13	± 0.10

\* the surface flatness for whole plates is measured with a special digital flatness ruler with a measuring length of 1 metre.



**metalweb**



metalweb's focus is on providing a high quality service to its customers. It does this by a process of continuous improvement, business vision and a total dedication to achieving excellent levels of service.

Our goal is to make a competitive difference for our customers by working with them, and often this means gaining a total understanding of their business, their thinking and their goals. As a result the majority of metalweb's business is built on long-term partnerships providing mutually beneficial outcomes for both parties.

In addition to long-term partnerships metalweb provide a 'spot service' for those customers looking to purchase their short-term material requirements.

**metalweb locations in the UK:**

## **BIRMINGHAM**

**(Head Office; Sales; Operations)**

Unit 1, Stargate Business Park, Cuckoo Road,  
Nechells, Birmingham B7 5SE

Tel: +44 (0)121 328 7700

Fax: +44 (0)121 328 8381

## **LONDON**

**(Sales; Operations)**

Unit 9, Trident Industrial Estate, Pindar Road,  
Hoddesdon, Herts EN11 0WZ

Tel: +44 (0)1992 450300

Fax: +44 (0)1992 450557

## **MANCHESTER**

**(Sales; Operations)**

Unit 20, Newby Road Industrial Estate,  
Hazel Grove, Stockport SK7 5DA

Tel: +44 (0)161 483 9662

Fax: +44 (0)161 482 9668

## **email enquiries**

from the UK: [info@metalwebplc.com](mailto:info@metalwebplc.com)

from outside UK: [export@metalwebplc.com](mailto:export@metalwebplc.com)

**[www.metalwebplc.com](http://www.metalwebplc.com)**

**metalweb**



ALFED

