



## FORTAL

**ALUMOLD 1 500L**

**ALUMOLD 1 500F**

**ALUMOLD 2 400L**

**ALUMOLD 2 400F**

## Product

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High resistance aluminium plate for mould and tool construction.

## Observations and applications

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Developed for the aeronautical industry, this alloy's properties have been optimised for the mould construction industry and this is its main use so as to be able to replace medium and high-quality steels.

Its most important properties are its high-level mechanical characteristics, excellent machinability and great uniformity of all its properties by means of the total thickness of the plate. These properties involve excellent machining for the mould constructor which is constant for the whole plate even at higher thicknesses.

The plates denote very good dimensional stability and can be supplied stress-free.

In the mould and tool construction industry the advantages of aluminium are being increasingly preferred to the steels used traditionally

### **Excellent properties for machining.**

The cutting speeds in traditional processes are 5 times quicker than with steels which brings about a notable fall in working time.

The machining time saved with regard to steel may be reduced by 80%. Hence, the time elapsing between the design of a part (prototype) and the completed mould is reduced greatly, allowing very rapid access to the market. A lower cost per tool is also obtained and a greater tool duration owing to the lower wear and tear.

### **Low weight.**

Aluminium density is 2 to 3 times lower than that of steels, allowing more convenient, easier handling of moulds. As they have less inertia, they can be opened and closed more rapidly.

### **High thermal conductivity.**

Owing to the fact that thermal conductivity is around 4 times higher than that of steel, this allows a considerable reduction in the work cycle duration.

The use of less complex refrigeration systems is also possible. The good, even evacuation of heat reduces the appearance of internal stresses and the attendant distortion of the finished moulds.

### **High electrical conductivity.**

Thanks to the fact that the electrical conductivity is around 10 times higher, there is the possibility of working on the aluminium an average of 4 to 5 times more speedily by (EDM) than with steel, the result is a particularly economical working method.

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