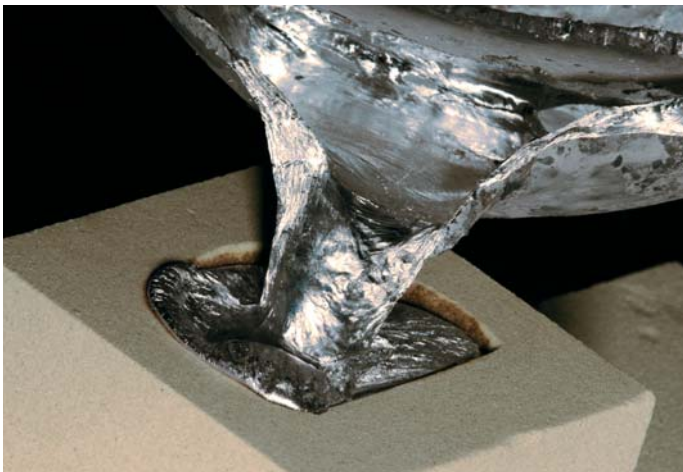


# MATERIAL & APPLICATIONS



In metallurgy the achievement of satisfactory products is essentially linked with the choice of the alloy grade. This depends on whether one wants to favour physical properties such as hardness, wear resistance, elongation, tensile strength, resistance to oxidation or temperature, improved machining, improved material flow.

We currently uses the following alloys:

- > Al Si5Cu3Mg
- > Al Si7Mg0,3
- > Al Si7Mg0,6
- > Al Si7Cu3Mg
- > Al Si8Cu3Mg
- > Al Si9Cu3
- > Al Si10Mg
- > Al Cu5MgTi
- > Al Cu5NiCoSbZr

To obtain a given characteristic, the choice of heat treatments is decisive. Usual material state designation are:

F, T6, T4, T5, T99

Material also means the mould and even more importantly the core, that is to say the quality of the sand, its origin, its granulometric size and homogeneity.

The binder too must not be overlooked, it must be carefully blended into the sand to give sufficient rigidity to the mould.

It further means that the material used for the tooling must be carefully selected at an early stage. The "capability" of the equipment that is to say the life and the volume of parts to be produced over the years is significant.

According to the size of the component and the specifications, other synthetic resins are processed by rapid prototyping.



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