

Feedstock

Economic aspects

RAW MATERIAL

MIM feedstock is obtained by mixing metal powders. The metal powders are obtained from the raw materials. Powdered metal is obtained by gas atomization, which is more expensive than mechanical alloying. As the raw material is more expensive, the powder should be as light as possible. The powder thickness, though it cannot be too thin, and the use of coring, are both factors that affect weight and eventually part cost.

MIXING

Mixing is the process of feedstock preparation (addition of binder to the powders), it is a rather stable value when applied to well established MIM feedstocks, just a few euro per kilogram, i.e. an additional cost to the powder cost.

Should a special feedstock be developed for a new application, it will suffer from added costs coming from some development activity:

- these costs will eventually be diluted over the quantity produced, but of course if a part requires a special alloy and only in a small quantity, that is the worst case in terms of cost.