



## Moulding material for precision casting of nonferrous metals according to the compression vacuum moulding procedure

### Special Advantages

- Energy saving due to omission of mould tempering
- Smooth cast surfaces with excellent detail rendition high stability of the casting due to optimum metal structure

### Characteristic Data

Powder

Mixing ratio powder : water	1 kg : 0,67-0,77 l
= mixture volume	1,02 – 1,06 l
Mixing time	5 min
Working time	app. 12 min
Setting time	app. 25 min

### Processing

1. Model preparation:  
Insulate the original model with a mould release agent and put it into a suited moulding box. For insulation, we recommend applying a layer of wax. Then coat the polished wax film with a delicate layer of oil.
2. Installation of the drainage system:  
To this end, several procedures may be used which are described in detail in the enclosures. The selection of the procedure depends on the size, form and number of the models.
3. Manufacture of the **Gilvac** mould:  
The powder/water mixture ratio varies within the above range depending on the different applications. Strew **Gilvac** powder into the mixing water, and mix it vigorously. In order to avoid air bubbles, the **Gilvac** mix is poured in a fine jet, starting from the middle, into the moulding box or the boxless mould.

4. Pressing of the excess water and drying of the mould:  
After the **Gilvac** mix has stiffened, which can be checked at a separate loaf by finger test, put the mould edgewise and connect the drainage system to the compressed air system. Pressure increase 0,2 bar per min., starting at 0,2 bar up to a maximum pressure of 1,8 bar. Then continue to press with constant pressure, until no water is separated. During this, the mould is almost automatically released from the original. Drying time of the remaining water is approx. 12 h at 120 - 180° C are required with small moulds. With bigger moulds the drying period increases. It amounts to approx. 60 min. per cm of layer thickness.
5. Casting under vacuum:  
Put the respective compressed air connections under vacuum. Required suction capacity: approx. 2.5 l/dm<sup>2</sup>/min. at a vacuum of 0.6 bar. Pour the metal out while maintaining a vacuum of 0.6 bar.

### Caution:

**This embedding compound contains quartz.  
Therefore avoid inhaling dust!**

### Packing units

Paper bags with foil insert	25 kg
Big bags	1000 kg

### Storage stability

For original packaging at least 12 months if stored dry in well-closed, damp-proof packing.

The above recommendations are given to the best of our knowledge. We grant the quality of our products according to our specification. Any further liability cannot be accepted since the proper application of our products is outside of our control.