

### Weighing



All components must be weighed :

- 1 part Acrystal Prima liquids
- 5 parts Acrystal Decor Metal powders

1. First weigh the Acrystal Prima liquid in the mixing bucket.
2. If required, add some Retarder.
3. Ensure the Acrystal Decor Metal powder is homogenously mixed.
4. Acrystal Decor Metal powder must be weighed in a suitable separate container.



### Mixing



Use a high shear mixing blade to break up small lumps. The following sequence of mixing is critical.

1. Blend liquid for 15 to 30 seconds using high shear blade and incorporate Acrystal Retarder if required.
2. While continuously mixing liquid, slowly add the powder.
3. Continue mixing for 1 to 2 minutes creating a vortex in the mix until a lump free cream consistency of the compound is obtained.
4. Incorporate thixotrope if required.
5. Acrystal Decor Metal batch mix is then ready for use.



### Use



Pot life at room temperature of 17 to 20°C :

- 8 to 12 minutes without retarder
- up to 90 minutes with retarder

1. Apply a gel coat of 1 to 3 mm in the mould.

- ▲ Trick : The gel coat can be applied with a hopper gun
- It is imperative to use retarder
  - If necessary, add 1 to 5 % Acrystal Prima to get the mixing more fluid
  - Use a nozzle of at least 3 mm diameter



2. Prepare the Acrystal Prima for casting or lamination. (see « Acrystal Prima users guide »).  
▲ Trick: It is recommended to colour the material in a colour similar to the gel coat in order to hide possible imperfections.
3. Let the gel coat dry until it becomes a satin-finish and does no longer stick on the finger and finish the casting or laminating according to the Acrystal Prima users guide.

**Casting :** Acrystal Decor Metal can be directly casted. In this case extract air by usual techniques and cast into silicone rubber moulds.

### Setting

- First the mix becomes thick and the exposed surface matt.
- This step is followed by a temperature increase.
- The setting is finished when the item comes back to room temperature.

## Demoulding

Demoulding is possible after 20 minutes to 2 hours depending on the size and the shape of castings and laminates.

## Curing

**Important** : After demoulding, leave the item at least 48 hours before any finishing operation.

## Hardning

- 90 % of the hardness is achieved after 6 hours at 20°C.
- After 72 hours the item is completely cured.

## Finishing

1. Remove the resin film on the surface with wire wool until the metal particles are exposed.
2. If required, oxidised finishes can then be produced using patinating solutions. (optional)
3. Polished finishes are achieved by applying a soft wax furniture polish or shoe polish on the metal finish. This operation also benefits from natural oxidisation of the metal particles.
4. After a few minutes, buff with a polishing mop.



## Tips & tricks

### Coloured polishes

Coloured shoe polish can be used instead of furniture polish. This gives special colour effects on bronze / copper surfaces and makes it shiny.

### Acrystal Finition

Acrystal Finition can be used to avoid the oxidation of the metal. The addition of some drops of pigments also provide special colour effects.

### Casting of fine pieces

For the moulding of parts with very fine sections (a few millimetres), it is possible to reduce the mixing ratio of Acrystal Prima from 1 to 2,5 to 1 to 2.

**ATTENTION** : This modification of ratio must be exclusively reserved for fine parts (a few mm), to avoid any problems of drying, which could occur in the heart of thicker parts.

### Oxidation of the bronze

- Acrystal Decor Bronze can be oxidized by foundry methods
- A solution can be made by dissolving ammonium chlorite in water (10% ammonium chlorite in 90 % water). Apply to the surface to oxidize.
- After the chemical oxidation, it is important to stop it by cutting the surface from the contact with air, by applying a varnish or a wax.

### Product to thick

Acrystal Decor Metal may be too viscous for some castings. In this case it is possible to add some water or some Acrystal Prima resins in small quantities: 1-2 % maximum.

All information contained in this data sheet is given in good faith. However, it remains all times the responsibility of the customer to ensure that the materials are suitable for the particular purpose intended.