

FORMALOSE®

Since 1935 FORMALOSE® has been a proven material for casting

- biological
- artistic and
- technical objects

After use, it can be melted over and over again and reused for casting.



FORMALOSE® is a hydrocolloidal, reversible product

FORMALOSE is a hydrocolloidal, reversible product that can repeatedly be transformed from the gel state into the desired state that is necessary for processing by adding warm water. The molds are of the greatest sharpness and detail. For forms with deep and fine overlaps in the form construction, the usual types of divisions should be carried out.

Processing instructions

Required materials and tools

- heat source: gas, electric or induction cooker
- a heat-resistant plastic or wooden spoon
- a saucepan to use for heating FORMALOSE
- plaster gauze to support the form if necessary

Preparation

Heat the FORMALOSE in a saucepan.

To avoid scorching the FORMALOSE, pour as much water into a saucepan as is necessary to ensure that the bottom of the pan is well covered.

(If the saucepan that you are using has a diameter of up to 18 cm use approx. 50-75 ml, and if its diameter is over 20 cm use approx. 100 ml.)

When this water is boiling, add FORMALOSE one handful at a time (one portion containing approx. 100 g), stirring continuously at a low water temperature. Add more FORMALOSE only when the last handful of it has melted completely. Continuous stirring is crucial during the melting and cooling process.

The final consistency of the FORMALOSE can be changed depending on the amount of water added. The firmness of the FORMALOSE can therefore be changed and adapted according to individual needs. (More water, for example, creates a more fluid consistency for moulding a form [e.g. by using twice the amount of water], while less water creates a more paste-like consistency to reduce dripping from vertical surfaces.)

As soon as the material has a homogeneous and creamy consistency, it is ready for casting.

Reutilization

To reutilise FORMALOSE it is merely necessary to remove all foreign bodies from it after casting (e.g. by rinsing FORMALOSE under running water).

Afterwards, the FORMALOSE needs to be dried slightly in air so that no additional dampness is present on the surface. FORMALOSE should be stored in the airtight container included in the delivery.

Casting, in general

The FORMALOSE must cool before casting. It is best to continue to stir the FORMALOSE periodically while it is cooling. With quick cooling in a water bath the FORMALOSE must be stirred constantly.

The added quantity of water determines the possible pouring temperature. The more water that is added, the lower the temperature can be while pouring the form, but the possibility of shrinkage becomes greater.

Living objects can be casted with FORMALOSE at a temperature of 40 °C. It is generally fine to check the temperature with the hand. Technical objects, particularly those from metal, can be casted at higher temperatures. The objects to be casted ordinarily do not need to be covered with a dividing layer, however it is suitable to water very absorbent objects, e.g., plaster gauze. When in doubt, first test the surface in a less visible area with a tiny amount FORMALOSE.

As soon as the material becomes creamy, it can be used for casting. At body temperature the FORMALOSE gels into an elastic form, meaning that sensitive original surfaces can still be casted at a temperature of approx. 40 °C.

Production of a mold

Use usual methods of casting to produce a mold. For strong undercuts the mold must be divided.

Use of FORMALOSE® for the casting of sculptural objects

Follow the preparation instructions as described in the above segment „Casting, in general.“ The liquid FORMALOSE must be kept warm (at about 85 °C) and stirred constantly. For the pouring process, lower the temperature while stirring constantly to prevent the FORMALOSE from starting to solidify in places where it has cooled too quickly, in which case these solidified pieces would not completely separate again.

The best temperature for pouring the FORMALOSE is just under 60 °C. By using this temperature and a suitable consistency, which can be adjusted by the addition of water, even large and complicated forms can be poured without difficulty.

A dividing layer between the halves of the mold is not necessary because FORMALOSE does not connect to material that has already been solidified.

Use of FORMALOSE® for the casting of living objects

Cool the melted FORMALOSE down to approx. 42 C °, stirring continuously. This can be done in a bath with a temperature higher than 40 degrees centigrade. The exact measurement of the temperature with the thermometer is not really necessary. It is enough to check the temperature with the inside of the wrist.

Attention! If FORMALOSE is too hot you could burn your skin.

The person being cast should if at all possible remain upright because the facial features change when lying down. Also, if you want to cast closed eyes, it should be done while sitting upright because if they are casted while lying down, the eyes will have the expression of sleep whereas if they are casted while sitting up, it will give the impression that the eyes are closed in contemplation.

Always begin with where the hair parts. With easy hairstyles in which the hair does not stick out, the hair should be moistened and smoothed down. FORMALOSE does not attach to hair.

If the bridge of the nose is covered with the warm FORMALOSE, the mucous membranes of the nose loosen, so that even with a cold the nose becomes free and no lack of breath occurs. It is important that one covers the nasal septum to the upper lip clearly with FORMALOSE along with the sides of the nose up to the inner edge. This is also best accomplished using a paintbrush. The nose stays open until the mask is taken off. At that point, simply close both nostrils in the negative from the outside, so that the casting material cannot flow of it.

By using a thin mat of interlining (Vilene), you can apply a second layer wherever the first layer is too thin. FORMALOSE does not combine with itself after it has solidified; however it will probably connect with the back of the interlining mat.

Before the taking the mold off, lay two or three pieces of plaster gauze over the elastic FORMALOSE negative, so that no further distortion is possible while taking the mold off and thereafter.

To take the mold off of the face, the model should bend forward as well as possible and make grimaces inside the mold. This loosens the FORMALOSE from the face. Because hair does not connect to FORMALOSE, it can be slowly pulled out from the material.

In order to cast from this mold, the mold must be put in a fixture that prevents distortion of the form, and the openings of the nostrils must be closed up (e.g. with clay). The first cast made from a FORMALOSE mold is typically made with plaster so that it can be retouched if necessary. By using this touched-up plaster positive, you can make a stronger FORMALOSE-mold, which can then be used for many casts with any desired material.

The practitioner knows that practice makes perfect. Therefore, it is a good idea to do a few trial runs, perhaps using the back of your own hand, and then eventually

transfer to making a face mask. After even more practice, you'll be able to cast ears and scalps too.

Casting the FORMALOSE® form

The FORMALOSE form is suited for most common materials that you can use to make a positive form. Wax positives should be casted at a temperature just above solidification temperature. Plaster positives can be removed after the start of the warming during the setting process. Polyester resins and other casting resins whose condensation is normally stimulated by acids are not suitable.

The best results come by casting the FORMALOSE molds with plaster if you take the cast out as soon as the mold becomes warm from the warm plaster that is poured in.

Storage of the molds

The FORMALOSE mold is not a long-term mold. If you would like to store them for longer periods of time, put the molds in a damp towel and wrap them in polyurethane foil. Add a preservative (e.g. alcohol) to the net amount of water.

Shrinkage

Molds from latex concentrates, synthetic rubber, and silicone rubber tend to shrink. When it is stored in dry air, the FORMALOSE mold also shrinks. However, if the FORMALOSE form is stored in water it does not shrink.

Soak

A shrunken FORMALOSE mold will always soak in water up to its exact original size and does not contort with reasonable storage. It is important to make sure that the mold is soaked or dried equally and simultaneously on all sides during shrivelling or soaking processes. This can be easily done by storing the mold or by using a sieve.

Reuse

In order to reuse the mold, it is important to rid the mold of all foreign substances that it came in contact with after the casting.

All the other casting materials are costly because of the fact that once they have been used once, they cannot be reused for a new cast. However, the FORMALOSE from a used mold can be processed again by melting it as often as desired into a new form. Because FORMALOSE can be repeatedly used in this way, the purchase price decreases with its continued use to a very low amount. Because FORMALOSE can be processed so simply and used over and over again, it is also not necessary to have a large storage area for molds.