

Sio-2 PLUS® natural air-drying clay**Description and properties**

Natural air-drying clay. No firing is necessary. After drying, it achieves high hardness, strength and solidity.

It is available in **6 natural colours**: white, terracotta, ochre, green, blue and black.

It comes in **6 sizes**: 250g, 500g, 1kg, 1.5kg, 5kg and 10kg, plus a **hangable** format of 500g (in white and terracotta). The small sizes are ideal for individual use and for testing new colours while the larger ones are more economical and very practical to use in schools or workshops.

It is a suitable material for development of creative and perception skills (**plastic expression**). It is suitable for children (from 3 years old) and is also recommended in handicrafts and professional creative/decorative arts.

It has very good modelling plasticity. Its natural clay components give an **excellent plasticity** to the modelled item and the presence of natural fibers of cellulose allows a **secure drying**, free of cracks and fissures, even for the large pieces.

At touch, it has **smooth and fine texture**. It allows modelling **very fine details**.

It can be moulded and **thrown** on a potter's wheel.

It does not stain. It is easily cleaned with water and a cloth. A humid cloth removes easily any rest of the product from all surfaces and furniture.

It does not smell.

Once dry, the clay can be **painted or varnished** with any type of paint or varnish. It can be also polished, carved or drilled.

The product is conforms to the European regulation **EN-71** and to USA regulation (seal **AP non toxic product**).

The clay remains unalterable in its original packaging for a minimum period of two years.

Comparative features

Compared to natural pottery clays, **Sio-2 PLUS®** does not need firing. Once dry, the piece can be painted or varnished. This clay allows creating objects with difficult drying, free of cracks and fissures while drying.

In comparison to the other air-drying clays, **Sio-2 PLUS®** is composed of minerals and natural clays, with plasticity noticeable at touch, but especially is recognizable by the lack of aggressive smell, typical for the synthetic modelling clays. As opposed to the other commercial clays, **Sio-2 PLUS®** can be thrown and fired in a kiln (see further paragraph).

General information and how to use it**HOW TO USE IT**

- This clay does not stain.
- It is recommended to knead the clay **Sio-2 PLUS®** before working with it.
- If during modelling the clay loses its plasticity, it is enough to slightly wet your hands.
- The clay is easy to model, using adequate modelling tools (we recommend the **pottery tool kit Sio-2®**). It can also be moulded (we recommend plaster's moulds) and thrown in a potter's wheel.
- To seal two different pieces of clay, mark them with a spatula or a die, and then, using a paintbrush, moisten them with slurry (clay mixed previously with water until a liquid texture is obtained). When pieces are united to form an angle, in order to glue them, it is better to make a noodle of clay along the angle, then to press and define the angle with a spatula.

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- To seal two already dry pieces conventional glue can be used. It is not recommended to glue a dry piece to a humid one, because the glue will not hold, as the humid piece shrinks while drying.
 - To smooth and polish surfaces use a wet sponge in order to achieve clean finish.
 - Best results are obtained on thin walls or solidified objects.
 - For modelling hollow items, flexible or rigid supports can be used.
- ⚠ If the clay is used over inside rigid surfaces (of metal, plastic or wood), it is recommended to cover the surface with a sheet of paper or fabric to help the shrinkage of the clay when drying and avoid the appearance of cracks and fissures.

HOW TO PRESERVE IT

- Once the container is opened, the clay **Sio-2 PLUS[®]** needs to be wrapped in plastic in order to be preserved.
 - Since it contains a minimum of humidity, it can be recovered by wrapping it in a humid cloth.
 - During work interruptions, cover the item with a plastic or a humid cloth.
- ⚠ Keep the clay in a cool place and avoid high temperatures. Do not store at temperatures lower than 0°C (32 F). If freezes, it loses its properties.

DRYING

- When finished, leave the item dry to the air.
 - Hardness and maximum resistance are obtained after drying at room temperature from 2 to 5 days.
 - Drying can be speed up by exposing the item to different sources of heat or manual dryers. In these cases, the time for obtaining a maximum hardness and solidity is reduced to a few hours.
 - Hardness can be reinforced additionally, by completing the drying in domestic oven at temperatures between 100°C and 110°C (180-200°F).
- ⚠ While drying, the clay **Sio-2 PLUS[®]** shrinks. The more water contains the clay, the more it shrinks during the drying. When modelling big size pieces or objects with a difficult drying, it is recommended, before modelling, to first leave the clay to dry for a while and then homogenize it by kneading it.

FINISHING AND DECORATION

- Once dry, the item can be polished, carved or drilled, before being painted.
 - It can be decorated with any type of painting, with pencil or marker.
 - Since the surface is not porous, one single layer of painting is enough to obtain all the brightness of the colour.
 - It can also be varnished. The use of the varnish is recommended to highlight the clay colour. Using varnish ensures greater durability and allows easier cleaning.
- ⚠ The clay **Sio-2 PLUS[®]** is not water-resistant. It should not be use for items which will contain water, unless they are protected with waterproof product.

FIRING

- The clay **Sio-2 PLUS[®]** is essentially composed by natural clays and minerals, therefore it can be fired in a kiln at 1000°C (1832°F, cone 06), even if, in this case, it is better to use a non-air-drying clay (**Sio-2[®] ARGILA**).
 - The clay **Sio-2 PLUS[®] Terracotta** is the most adequate for firing. Firing the others colours (white, ochre, green, blue and black) are not recommended, since the original size, colour and texture of the piece can be substantially affected during firing.
 - Firing reduces substantially the size of the item, due to its ceramic firing shrinkage.
- ⚠ During firing, the clay **Sio-2 PLUS[®]** releases a smoke, due to the combustion of the organic matter. The smoke has an unpleasant smell and is released from 130°C (230°F). It is recommended to air well or to plan a good smoke evacuation system of the kiln.

Sio-2 PLUS[®] natural air-drying clay**FAQ's****How much time takes the clay Sio-2 PLUS[®] to dry?**

The clay **Sio-2 PLUS[®]** is composed essentially of natural clays. Therefore, the speed of drying is the same as the one of the other natural pottery clays, and will depend on the item size, on its shape and on the ambient drying conditions (mostly temperature and ventilation). However, as opposed to the other clays, the drying time can be accelerated by using other sources of heat or manual dryers, avoiding cracks and fissures, because of the presence of natural fibers of cellulose which allow more secure drying.

The majority of the commercial modelling clays are synthetic and advertise faster drying, but in reality, the complete drying is not achieved before few weeks. This is due to the presence of chemical plasticizers.

Why the Sio-2[®] PLUS White is slightly grey?

Natural white clays are usually grey, never completely white, due to the presence of organic matter, even if in a very small quantity. This is why a grey shade can be noticed when the item is wet.

As a rare exception, the clay **Sio-2[®] COLORPLUS White** is exceptionally white despite it is composed of natural clays and minerals. It could be offered as an alternative to the **Sio-2[®] PLUS** when high whiteness is required.

Is the higher price of the clay Sio-2 PLUS[®] justified, when compared to the price of pottery clay?

The properties of air-drying clay justify its higher cost. In fact, an item modelled with conventional pottery clay is perishable (breaks easily with the time) and needs to be fired in a kiln at 1000°C (1832°F, cone 06). Therefore, the overall cost will be higher than using air-drying clay.

Safety regulation

Material Safety Data Sheet is available upon demand.

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