



## Sio-2<sup>®</sup> ARGILA natural pottery clay

### Description and properties

**Sio-2<sup>®</sup> ARGILA** is the **100% natural** pottery clay. Easy and pleasant to work with. Ideal for modelling, sculpturing and the potter's wheel. Available in 2 colours (white and red) and 3 sizes (1.5 kg, 5 kg and 12.5 kg). Chamotted version (white and red) is available in 10 kg.

It is an educational material adequate for development of creative and perception skills (plastic expression). Suitable for children (from 3 years old) and is also recommended for use in creative and professional decorative arts, and in many other cases, when a natural clay is required.

Compared to the others potter's clays, **Sio-2<sup>®</sup> ARGILA** is very pure and fine milled clay. It comes in a practical vacuum-packed container (1.5 kg). Its plasticity is well balanced in order to achieve best results during the modelling, drying and firing. The original colour remains intact after firing and the clay interacts extremely well with the commercial ceramic glazes.

**Sio-2<sup>®</sup> ARGILA with chamotte** contains 0-0.5 mm chamotte. Chamotte confers to clay a very interesting textured surface (not flat) which, in turn, provides a set of suitable properties for the design of pieces in complex drying situations, thus avoiding the creation of deformations and cracks

After finishing the desired piece, let it dry and then it is recommended to fire it in a kiln (between 970 and 1050°C) and decorate it with ceramic glaze.

The product conforms to the European regulation EN-71.

It remains unalterable in its original packaging for a minimum period of **two years**.

### Comparative features

Compared to the others potter's clays the **Sio-2<sup>®</sup> ARGILA** is very pure and fine milled clay. It comes in a practical vacuum-packed container of 1kg, 1.5kg and 2kg. In all colours, its content is well balanced in order to achieve best results during the modelling, drying and firing. The original colour remains intact after firing and the clay interacts extremely well with the commercial ceramic glazes.

Compared to the other modelling clays and plasticines, the **Sio-2<sup>®</sup> ARGILA** is a 100% natural product, composed only from clay and water, which gives its pleasant and extremely fresh sensation at touch. It doesn't smell and doesn't leave any substances in the hands.

### General information and how to use it

#### HOW TO USE IT

- It is recommended to knead the clay **Sio-2<sup>®</sup> ARGILA**, before starting working with it.
- If during modelling the clay loses its plasticity or it cracks, it is enough to slightly wet your hands. If it dries completely, it can be recovered by adding water.
- The clay is easy to model using adequate modelling tools (we recommend the **pottery tool kit Sio-2<sup>®</sup>**). It can also be moulded (we suggest plaster's moulds), and most of all can be thrown on a potter's wheel.
- To seal two different pieces of clay, mark them with a spatula or a die and then moisten them using paintbrush 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 press and define the angle with a spatula.
- To smooth and polish surfaces use a wet sponge to obtain a clean finish.
- For modelling hollow objects, flexible or rigid supports can be used.

⚠ If the clay is used over inside rigid surfaces (metallic, plastic or wooden), it is recommended to cover the surface with a sheet of paper or fabric in order to help the shrinkage of the clay when drying and avoid the appearance of cracks and fissures.



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- ⚠ When uniting two parts of clay, make sure that both are equally humid (hard). If not the softer one will shrink more while drying and will detach from the dryer one.

### HOW TO PRESERVE IT

- Once the container is opened, the clay **Sio-2<sup>®</sup> ARGILA** needs to be wrapped in plastic in order to be preserved.
- If the clay dries completely, it can be recovered by mixing it with water.
- During work interruptions, cover the item with plastic or a humid cloth.

- ⚠ Do not store at temperatures lower than 0°C (32°F). If freezes, it loses its properties.

### DRYING

- Once completed, leave the piece to dry, avoiding any direct sources of heat or air currents. Slower drying allows avoiding the appearance of cracks and fissures. It is recommended to leave the item to dry on top of porous surface (of paper, wood, porous ceramics, mould or fabric).
- If it is a very large or solidified piece, it is recommended to slow down drying by covering the piece with plastic, while leaving only a small opening, in order to slow the evacuation of the humidity.
- Pieces that are completely flat (plates or tiles), should be dried leaving on top a flat weight. It will avoid the piece bends or cracks from inside, which occurs if it is dried quickly.
- Drying at room temperature takes from 2 to 5 days, depending of the size and the environment conditions (see the FAQ's).
- Use **Sio-2<sup>®</sup> ARGILA with chamotte** in case of pieces with difficult drying.

- ⚠ While drying, the clay **Sio-2<sup>®</sup> ARGILA** shrinks. The more water contains the clay, the more it shrinks during the drying.

### FINISHING

- Once dry, the item can be polished, carved or drilled, before firing.

### FIRING

- Fire the clay **Sio-2<sup>®</sup> ARGILA** in a kiln at the following optimal temperatures: 1000°C (1832°F, cone 06) for the red and black colour, and 1050°C (1922°F, cone 04) for the white, yellow, green and blue colours.
- During firing, the item will reduce its dimensions, due to the ceramic firing shrinkage.

- ⚠ For very large or solidified pieces, it is recommended to make a slow pre-firing at temperatures between 150 and 200°C (300-400°F), leaving the door of the kiln slightly open (not hermetically closed). It will help the full evacuation of the humidity while drying. It is recommended **Sio-2<sup>®</sup> ARGILA with chamotte**.

### DECORATION

- The clay **Sio-2<sup>®</sup> ARGILA** interacts very well with the conventional ceramic glazes. Even if it is possible to glaze the item once dry without being fired (once firing), we recommend glazing it after firing (twice firing). The best firing temperature for glazing is usually indicated by the glaze manufacturer.
- We recommend the use of specialized literature for techniques and tips on how to use ceramic glazes.



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### FAQ's

#### How much time takes the clay Sio-2<sup>®</sup> ARGILA to dry?

The speed of drying will depend on the item's size, on its shape and on the ambient drying conditions (mostly temperature and ventilation). As mentioned previously, in case of very or solidified pieces with flat or delicate shapes, it is better to slowdown drying. As opposed to **Sio-2<sup>®</sup> PLUS**, this clay doesn't have natural fibbers of cellulose to prevent the appearance of cracks and fissures when drying is too quick.

#### Is it necessary firing the clay Sio-2<sup>®</sup> ARGILA?

If the ultimate goal when using the clay **Sio-2<sup>®</sup> ARGILA** is to obtain a long-lasting piece (decorated or not), we recommend firing it in a ceramic kiln, as indicated in the paragraph about how to use it. Nevertheless, the clay **Sio-2<sup>®</sup> ARGILA** has multiple applications, and especially because of its texture and plasticity, is an ideal material for modelling and sculpturing. It is a lot utilized in creation of models for metallic sculptures (bronze), and it is a perfect tool in the creation of temporary pieces of art (artistic performances).

#### What is the difference between the clay Sio-2<sup>®</sup> ARGILA and the air-drying clays?

The clay **Sio-2<sup>®</sup> ARGILA** is the ideal material for creating pieces, using modelling, potter's wheel and moulding techniques. In order to conserve a long-lasting item, the piece needs firing in a ceramic kiln and then it can be decorated using conventional commercial glazes. It is, in fact, a professional potter's clay. When a kiln is not available, it is better to use air-drying clays, such as **Sio-2 PLUS<sup>®</sup>** or **Sio-2<sup>®</sup> COLORPLUS**, which become very hard and solid, once dried, and can later be decorated with any paint or varnish.

#### What is chamotte and what is it using for?

Chamotte (also known as grog or firesand) is clay calcined at 1450°C and grounded. It is used to stabilize the clay during drying and firing. The large particle size helps compaction of clay, preventing cracks and helping degassing while firing. Chamotte is used instead of common sand because its ceramic behavior is very similar to clay itself, because, in fact, it is pre-calcined clay (fired), so that no dimensional stresses are generated inside the piece during the entire firing process (heating and cooling).

### Safety regulation

Material Safety Data sheet is available upon demand.



CERAMICA COLLET S.A.

NIF: A08606667 / CE NIF: ESA08606667

Polígono Industrial L'Olana s/n. P. O. Box 205. E-08292 ESPARREGUERA (BARCELONA), SPAIN

Tel. (+34) 93 777 23 44 Fax (+34) 93 770 94 11 e-mail: info@sio-2.com [www.sio-2.com](http://www.sio-2.com)