



## Reception, use and maintenance of "grés" sandstone wine jarres

Sandstone is a ceramical produced material

- Composition of sandstone:  $\text{Al}_2\text{O}_3$ : 18.2% /  $\text{SiO}_2$ : 68.18% /  $\text{FeO}$ : 5.98%
- The jarres are shaped by junction of molds
- Cooking temperature: 1300 ° C
- Porosity: <2.5%

### 1. Handling precautions:

The jarres that are delivered on a stainless steel support will allow you to move them with a pallet jack. Depending on the jarre, it can be delivered on a wooden pallet or stainless steel support. Empty, the jarres are not tremendously heavy.

When moving your empty jarre around either on a pallet or stainless steel support , always be 2 people with 1 holding and controlling the jarre.

### 2. Jarre sandstone lid:

The jarre's ability to hold liquid without leaking is tested by a long pure de-chlorinated water holding process in Vin et Terre's workshop before the jarre's departure

Before removing the sandstone lid (for the jarres equipped with a sandstone lid):

- Identify the lid associated with each jarre size, in order to keep the correct lid for the right jarre and to not mix them up

Overtime, the sandstone lid has only one position. Feel free to make markers directly on the sandstone jarre where the lid meets the clamps. This way you always align the lid and clamps with these markers and therefore the lid always maintains the same position on the jarre. This will ensure a perfectly sealed closure over time

Center the 8 mm wide white silicone gasket around the lip of the jarre. Gently tighten the clamps but do not force and tighten the clamps too much on the lid which could result in breaking the lid.

The sandstone lid has a 50 mm center hole therefore a silicone bung or hand blown glass colmatore can be used for closing the hole.

A glass colmatore has proved to be the better method for closing the jarre because:

- Elimination of headspace inside of the jarre
- Ability to control the level of wine inside of the jarre as soon as you walk into your cellar.

### **3. Use of jarre after reception:**

The jarres ability to hold water has been tested prior to shipping, however, testing it's ability to hold water before putting juice, must or wine inside is recommended for 100% confirmation and ease of mind.

Before filling with water, check the tightness of the bottom valve

Fill or rinse the jarre with the purest possible water. No chlorinated water in any case. Once drained and confident in the jarre's ability to hold liquid, you can put your wine in direct contact with the jarre.

Sandstone is completely inert and alimentary products can be put in direct contact with it. The sandstone is neutral and therefore does not risk to increase the PH of your wine.

#### **4. Situating jarre inside of cellar:**

For the fermentation or ageing of your wine inside of the jarre, carefully place and position the jarre inside of the cellar:

- In a cool and sufficiently humid atmosphere that is not hotter than 70 degrees Fahrenheit and has between a 70% - 80% relative humidity
- Avoid placing your jarre where it is susceptible to air drafts, wind or currents of air
- Ensure that the atmosphere of the cellar remains healthy (no foreign smell or contaminations)
- The appearance of mold on the outer surface of the jarre is possible and logical if the atmosphere of the cellar is wet. 70% to 80% relative humidity is recommended for the development and preservation of your wines inside of the jarre

#### **5. Oenological monitoring during initial stages:**

In early steps of fermenting or ageing, top off the jarre regularly in order to maintain little or no head space inside of the jarre (depends on if you are using a silicone bung or glass colmatore).

Depending on the grape's variety and nature the wine will evolve over time. It's up to you to refine it, decide how long to age it inside of the jarre and what to do with the wine. A standard oak barrel has a porosity of 5% while a sandstone jarre has a porosity of 2.5% therefore you can feel comfortable that you can age inside of the jarre for an extended amount of time without the risk of oxidizing it too soon.

#### **6. Cleaning of the jarre in between winemaking uses:**

After the jarre is used and once emptied, the inside of the jarre must be cleaned. Make sure to remove any deposits of must, lees, tartrates etc...even in the least accessible parts of the jarre. For washing the jarres, we recommend using the following spray ball and creating a pump-over system where the spray ball hangs

inside of the jarre from over the lid and is attached to a hose and pump that is pumping from the full discharge valve of the jarre.



- 1.) Cleaning of tartrates and the elimination of the organoleptic material (organic acids, phenolic components, polysaccharides, polypeptides etc..)
  - a.) Rinse with room temperature water or with hot water that is under 105 C or 221 F.
    - i.) Gradually increase the temperature of the water over time to prevent a thermal shock. Gradually increase the temperature of the water to between 70 C - 80 C or 158 F - 176 F.

If the jarre is still dirty, you can proceed with the following:

- b.) Proceed with a 1.5% soda ash or sodium carbonate solution for cleaning the jarre. You can prepare the soda ash solution in a 5% - 10% solution of the jarres total volume by mixing in a separate bucket, pumping inside of the jarre, and then recirculating via the spray ball for 20 minutes. Clean with water.

Or

c.) Use a hydrogen peroxide ( $H_2O_2$ ) solution diluted to 50% with clear, non-chlorinated water which acts as a strong oxidant eliminating organic matter. Create the mixture in a 5% - 10% solution of the jarre's total volume by mixing in a separate bucket, pumping inside of the jarre, and then recirculating via the spray ball for 20 minutes and then clean with warm water. **IMPORTANT: Where gloves and goggles.**

Or

d.) Use a 1x part sodium bicarbonate and 2x part citric acid solution diluted to 10%. Mix the dry powders and add water (preferably warm) to initiate the reaction. Create the mixture in a 5% - 10% solution of the jarre's total volume by mixing in a separate bucket, pumping inside of the jarre, and then recirculating via the spray ball for 20 minutes and then clean with warm water. The bicarbonate will help absorb any unwanted odors while the sodium citrate acts as a sequestering agent. The combination with warm water will help rid the tartrates from the jarre and will prevent the formation of mold.

## **7. Storing of the jarre:**

If you have plans to leave your jarre empty over long periods of time: then some precautions need to be taken:

- After cleaning as explained above:
  - Drain the jarre
  - Place the jarre in a dry place with low humidity and leave the lid of the jarre removed
  - The jarre can also be left in a zone with lots of ventilation or by placing a fan in close proximity of the jarre
- Ensure that the environment where the jarre is placed remains healthy, neutral, ventilated and free of objects such as wet untreated cardboard or wood.
- If the jarre remains empty for a long period of time, repeat the cleaning procedure, and then fill the jarre with water and wet the exterior walls of the jarre before putting must or wine inside of the jarre.

- Like Impruneta terracotta, porcelain, earthenware, glass ... sandstone is born from the art of ceramics. Therefore, avoid any physical or thermal shock: too big of a temperature gradient change in too short of a time