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January 2026



Une image de...

Clayver, the "clever" ceramic

A high-performance patented material



Happy New Year to everyone, we hope you had a wonderful holiday season. On this occasion, we take a closer look at the Clayver material, its origins, its patent, and everything that has contributed to shaping it.

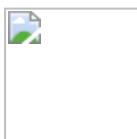
Why stoneware?

Stoneware (**grès cérame**) refers to a **very dense and highly resistant ceramic**, obtained by firing a blend of **fine clays and natural minerals** at extremely high temperatures. Stoneware is **impermeable, homogeneous, chemically stable, and safe for food contact**, while retaining a **slight microporosity** that is beneficial for wine. The invention of the Clayver material is the result of a long period of research and experimentation, leading up to its launch and **patent in 2014**.

Is Clayver “natural”?

The term *natural* is often used inaccurately. Clayver vessels are crafted by **human hands**, yet all the materials they are made from are of **natural origin**. The clays are selected for their purity and their suitability for winemaking, then mixed with water, shaped, and fired. And that is all.

For 13 vintages, a ©Clayver patent.



European origin and traceability of Clayver stoneware

The result of meticulous scientific research combined with artisanal know-how, Clayver stoneware is made from a **patented blend of carefully selected European clays**, specifically designed for their oenological properties. Each batch of clay is assigned a unique identification number, which is stamped on the lower collar of every vessel, ensuring **full**

traceability and precise quality control.

Sourcing the clays exclusively within the European Union means that the composition complies with **European regulations**, an essential requirement for food-contact use.

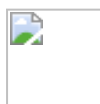
Locations of the quarries commonly used:

- Monte San Pietro, Emilia-Romagna region (Italy)
- Devon (United Kingdom)
- Hedon, Yorkshire (United Kingdom)
- Westphalia (Germany)



The importance of a patent from the very beginning

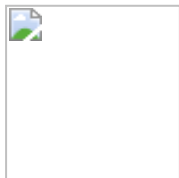
The Clayver vessel, in its various versions, is an **original product protected by two patents** and a registered Community design. For these reasons, it is guaranteed that no equivalent product is available on the market in terms of geometry and the intrinsic characteristics of the material. **Its nominal composition has remained unchanged for 12 years, ensuring long-term consistency and uniformity.**



The safety of our ceramic and periodic analyses

Clayver vessels contain no coatings, resins, added layers, or impregnation treatments. They are made from **100% food-grade ceramic, compliant with European regulations** (EC 1935/2004, EC 2005/31), and are regularly tested to guarantee the absence of migration of harmful substances, even under highly acidic conditions (pH < 2.5) and with high alcohol levels (spirits). Firing at very high temperatures provides exceptional resistance and **perfect chemical stability.**

Clayver also guarantees the **absence of migration of metallic ions** naturally present in the clay, such as lead, aluminium, or iron oxide, which gives fired clay its characteristic red colour. Clayver is a true guarantee of **safety**, with no risk of wine contamination.

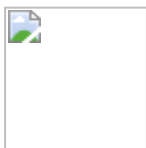


A craftsmanship of excellence

Manufactured in Liguria, Italy, all Clayver vessels are **produced entirely in-house**, without subcontracting, following an **artisanal process** under direct supervision at every stage. The raw material, mixed with water, is moulded, hand-finished, dried under controlled temperature and humidity conditions, and then fired at high temperature through sintering at over 1200 °C. Once completed, each vessel undergoes rigorous quality control and watertightness testing. It is then fitted with its accessories and packaged prior to shipment. All logos and customisations are **applied by hand**.

Video: The manufacturing of the
vessels

2025 Video: Welcome to Clayver, Themas



Controlled porosity

At 1200 °C, chemically stable and vitrified phases (*glassy phases*), characteristic of stoneware, are formed. This process leads to a **progressive reduction in porosity** and the creation of a dense, chemically inert material that is impermeable to liquids, thereby limiting the so-called “angel’s share.” At the same time, the material exhibits **high thermal inertia**, allowing temperatures to remain stable during fermentation and ageing. Clayver vessels are designed with a **stable, controlled microporosity** that enables subtle oxygenation while

preserving acidity, pH balance, and the wine's aromatic potential. By slightly increasing or decreasing the firing temperature (by just a few degrees), Clayver offers **two possible levels of microporosity for each vessel**:

Article: Clayver micro-oxygenation

Clayver Controlled Porosity: Micro-Oxygenation in the Service of Wine — Themas



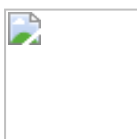
A resistant material, ensuring safety and practicality

The strength of the material provides **high mechanical and chemical resistance**, allowing **the use of all cleaning protocols**: hot water under pressure, MOOG spray heads, steam, caustic soda, and more. From one vintage to the next, it is also possible to **remove surface staining** by treating the vessel with peroxide.

Its dense, low-porosity structure **significantly limits bacterial development**. The pore diameter of the ceramic is approximately **0.04 µm**, which is **far smaller than most bacteria** (*Brettanomyces* = 3–10 µm) and lactic or acetic yeasts (0.5–2 µm). This means that microorganisms can **neither lodge nor develop within the material's porosity**, unlike what may occur with other porous containers. This is in fact **one of Clayver's major technical advantages**: controlled micro-oxygenation without any risk of internal contamination, excellent cleanability ensuring safety, and complete microbiological neutrality of the material. Despite its high hardness, stoneware remains sensitive to strong impacts and major thermal shocks; careful handling is therefore essential.

Article: Vessel Cleaning

Excellence also means maintenance, Themas.

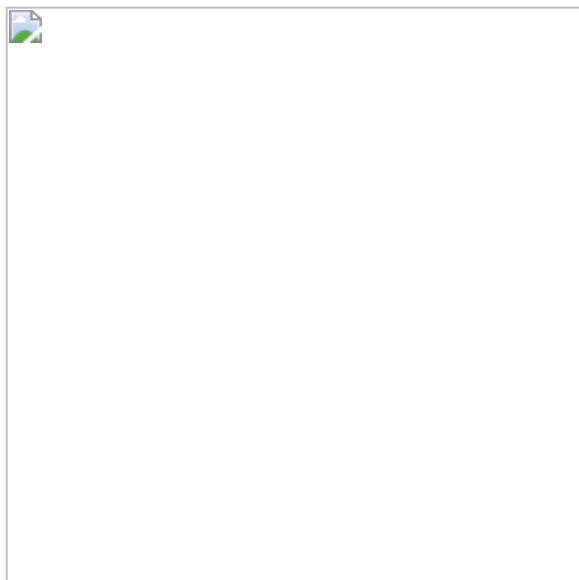


Long-term stability and sustainability

Clayver is part of a **comprehensive approach** to environmental, social, and economic **sustainability**. The vessels are made from inert ceramic without chemical additives, using **reduced amounts of water, energy, and raw materials**, and following a **circular economy model** that integrates material regeneration and recycling throughout the entire life cycle. The production process ensures a significant reduction in carbon footprint and full transparency. In the cellar, Clayver supports a more **restrained approach** to winemaking by reducing inputs, sulphur use, and cooling requirements, while encouraging water-based cleaning without aggressive detergents. This is complemented by a **strong social commitment** that values local artisanal know-how and responsible working conditions, as well as economic sustainability based on the **longevity of the vessels and the long-term stability of their performance**.

Article: Clayver Sustainability

Clayver & Sustainability An innovative vision of responsible winemaking, Thomas.



© Clayver

Innovative by Tradition: A Clayver Patent

The Clayver natural stoneware vessel, **patented and crafted in Italy**, is the result of ten years of research and innovation in winemaking and aging techniques. Featuring **controlled, gentle, and stable microporosity**, the tank enhances the **purity, minerality, and brilliance** of wine, revealing the full aromatic potential of the grapes and the terroir.

Where the Earth Ends, Clayver Stoneware Begins

With **precision, traceability, and food-grade certification guaranteed**, the vessel allows for subtle oxygenation **without altering acidity or pH levels**. Durable, safe, and easy to clean, Clayver is revolutionizing wine aging by preserving its integrity while enhancing the **true expression of the terroir**.



© Clayver & Themas



© Arnoux Lachaux

Clayver Video : Welcome to the World of Clayver

The **promotional video** offers an engaging journey into our craftsmanship and innovative spirit.

Explore every step of the **meticulous production process** in our Ligurian workshop in northern Italy, and witness how our tanks have become a key feature in some of the **most prestigious wineries around the world**.

Clayver Video

The Clayver Family!



Find the catalog on the website:

Catalogue Clayver





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Themas Vin