

ZIGNAGO VETRO

LICATA JAR - DEEP GREEN COLLECTION

CRITERIA APPLICABLE TO THE INNOVATION

- Recyclable packaging
- Reusable packaging
- Reduced raw material use
- Conscious design
- Responsible sourcing
- Reduces waste
- Energy efficient
- Reduces CO2Carbon neutral

DESIGN

The Licata jar from the Deep Green Collection is created for sustainable cosmetics: it is in fact the first jar launched on the market with UVAG colour. This type of glass provides up to 89% natural UV protection to the contents. The Licata jar is also produced with up to over 90% recycled glass, allowing a reduction of up to -36% in process CO2 emissions compared to the same article in white glass. The Licata jar is made of glass and can therefore be 100% recycled. Moreover, thanks to its simple and linear design, it can have a second life as a container.

REDUCTION MATERIALS

The Licata vase originally created in white glass also known as flint was later produced in UVAG in the Deep Green line. The virgin raw materials, consisting mainly of soda ash, sand and calcium carbonates, were considerably reduced and replaced by recycled glass: in the case of the Licata vase in the Deep Green line, recycled glass can make up to 90% of its entire composition. A greater use of recycled glass in the formation of a container results in lower energy consumption (each 10% increase in cullet corresponds to a reduction of up to 3% in energy consumption for melting), a reduction in virgin raw materials and a lower amount of CO2 emitted into the atmosphere (for the Licata we obtain a saving of -36% in CO2 emissions).

PROCESS OF PRODUCTION

Over the years, Zignago Vetro has sought to optimise its production processes and the use of its resources.

As far as energy efficiency is concerned, over the years all the Group's factories have made significant efforts to introduce technologically advanced industrial plants and to optimise and improve the management of existing plants in order to reduce their energy consumption. The main energy efficiency measures over the years have taken the form of numerous initiatives such as: -investment in innovative technologies and materials for the engineering and construction of more energy-efficient melting furnaces; -continuous revamping of auxiliary plants with increasingly efficient and sustainable solutions; -installation of a heat recovery boiler with turbine (active until 2022 and decommissioned in 2023); -increased use of scrap glass to decrease the energy demand of the melting process; -specific maintenance plans to maintain the efficiency of its plants; -extension of the use of LED lamps for room lighting; -training of employees in technical functions on energy saving. Over the years, these efficiency measures have led to significant reductions in energy consumption in relation to fused glass (today - 8.7% compared to 2018).

Energy saving is the main driver of CO2 savings. In the year 2023, the value of specific water consumption per tonne of molten glass was further reduced by -26.0% compared to the previous year.

The Group is committed to an ongoing reduction in water consumption, implemented mainly through technological investments in process water recirculation systems. As a result of the defined corporate strategy, Zignago Vetro expects to achieve by 2030 a reduction in specific water consumption of -14.0% compared to 2023.

SUPPLY CHAIN

The transition of the container composition towards higher percentages of scrap particularly affects the environmental impacts generated by the supply chain, as both the extraction, processing and transformation processes of virgin raw materials (sand, soda ash, carbonates, etc.) and their transport have much higher impact values than those related to scrap supply. In fact, typically the collection and processing of post-consumer scrap takes place in local plants close to the glassworks, with more limited process and transport energy consumption.

MARKET ADAPTABILITY

To create a sustainable line such as Deep Green, of which the Licata vase is a part, a lot of technical analysis was required: Each product had a complete analysis and evaluation of its life cycle as part of the feasibility assessment, which is a milestone in the new product development process. In the design, an attempt is made to reduce the environmental impact by acting mainly on the weight component and the packaging and transport characteristics. The pursuit of production efficiency by reducing the weight of energy consumption and emissions is a continuous and constant process, and the achievement of an increasing number of environmental certifications and labels is a goal shared by the Group's management and customers. Furthermore, stakeholders are increasingly involved in the process of implementing eco-design, which requires continuous and constant commitment to be implemented correctly.

END OF LIFE

The end-of-life is made very simple by the very 'nature' of the Deep Green vase itself: glass is recyclable and can be recycled countless times through Circular Economy processes. So in addition to being recycled and transformed back into a glass product, thanks to its simple, linear design it can be transformed and reused for a variety of purposes and thus be given a second life, ad infinitum.

