

Glass production sustainability shift spotlights

BORMIOLI PHARMA leadership

As global pharmaceutical glass usage surges, sustainability is no longer an option; it's a necessity. Global demand for glass pharmaceutical packaging, according to Freedonia, is projected to rise 6.5 percent per year to

nearly 20 billion dollars in 2025. In particular, prefillable syringes and vials for parenteral, high value-added drugs and biologicals will lead growth, leveraging on glass as one of the most used materials due to a number of reasons, including strong

barrier properties, enhanced chemical and moisture resistance, ease of process and improved shatterproof features. These features are continuously enhanced thanks to consistent R&D investments, addressing a higher demand for higher quality



In the following article, BORMIOLI PHARMA Engineering Director Davide Faverzani explains how his company is pioneering the future as a key participant in the transition towards sustainable pharmaceutical glass manufacturing.



glass. At Bormioli Pharma, we are not just watching this trend. We are working to lead it.

While inherently sustainable due to its natural ingredients and infinite recyclability, glass still has untapped potential for reducing environmental impact. As the powerhouse behind the production of over 2.4 billion glass vials annually, we are continuously pushing boundaries to set new standards in sustainability.

FOUR-PRONGED STRATEGY

Our recently published ESG report unveils our audacious four-pronged strategy to revolutionize the environmental footprint of pharmaceutical glass bottles.

Firstly, we're shaking up the recipe for glass production. Our ambitious 50-in-5 project isn't just a target; it's a commitment to our planet. By 2025, we aim to incorporate 50 percent sustainable materials in our products, including a significant increase in glass cullet usage. This bold move will improve our environmental impact and energy efficiency.

Secondly, we are taking resource management to the next level. We have set challenging targets for reducing water withdrawal intensity and carbon intensity, in particular when it comes to an energy intensive industry such as glass manufacturing.

Thirdly, we are scrutinizing every stage of the product lifecycle. In 2023, we conducted Life



ENVIRONMENTAL FOOTPRINT



Cycle Assessments (LCAs) on glass vials and we're gearing up to adopt the Carbon Footprint Systematic Approach (CFSA). This scientific methodology enables us to pinpoint areas for improvement and implement cutting-edge strategies to reduce our carbon footprint: for example, increasing the percentage of cullet in glass manufacturing.

Fourthly, we are harnessing the power of innovation. Innovation is a fundamental asset in reducing environmental impact in glass manufacturing, so as it is industry collaboration and partnerships. That's why we have joined Glass Futures, a globally reach-

ing research initiative focused on sustainable glass production. Glass Futures has been created with the intention of developing a new approach to glass production that can convey a technological and economic revolution of great impact to the industry, spearheading research into new low-emission methods and technologies for glass production. Through collaboration with universities, companies and research organizations, the project plans to bridge the gap between academic studies and commercial implementation with the launch of a unique first pilot furnace.

Moreover, we have been working with the Physics Department of

Genoa University, in Italy, to simulate the functioning of our molded glass furnaces. This simulation has allowed us to address the best possible actions to optimize the efficiency of our furnaces, and to experiment the utilization of alternative fuels, such as hydrogen for example.

Talking about hydrogen, our San Vito furnace is designed to be compatible with hydrogen fuel, heralding a new era of greener production methods and future proofing our operations.

SUSTAINABILITY AS A CORE VALUE

All this explains how at Bormioli Pharma we're driving the pharmaceutical industry to sustainability - through both relentless innovation and unwavering commitment to sustainability as we shape the future of pharmaceutical glass manufacturing. ■



 bormioli pharma

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