Session	Decarbonizing the Glass Industry (I)
Date	APRIL 10, 2025
Time (CET)	14:45 - 15:00
Chair	Serkan Şahin

CO_2 Reduction and Strengthening Techniques for Lightweight Container Glass

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Biography

Dr. Thomas Bewer began his career in the glass industry modeling glass forming processes, with a focus on mold and plunger cooling. This technical foundation led him to a role in product management, overseeing cooling systems and feeders.
Thomas later headed the End-to-End initiative at Bucher Emhart Glass, driving cross-functional collaboration and innovation to enhance manufacturing efficiency and sustainability from Forming to Inspection. Currently, he leads the Forming Technology Department, managing research and development, engineering, and product management teams. His work focuses on advancing glass forming technology to improve process efficiency, product quality, and sustainability.

Abstract

As the packaging industry continues to focus on sustainability, lightweight container glass presents a significant opportunity for reducing CO_2 emissions and advancing eco-friendly production practices. This talk provides an overview of the CO_2 reduction potential associated with lightweight container glass, emphasizing the environmental benefits of reducing glass weight without compromising container performance. Key challenge is to stabilize the container forming process. Innovative approaches will be presented that ensure process stability and thus allowing the production of lightweight containers.

The discussion will also delve into cutting-edge methods for inline strengthening of container glass, which enhances durability and resistance to breakage, even with reduced material usage. First results from these methods will be presented, demonstrating the viability and effectiveness of these techniques in real-world production settings. By exploring these advancements, this session will highlight how the glass industry can achieve both sustainability goals and improved product performance through the adoption of lightweight glass technologies.