

# Glass melting & process improvement for Indian glass industry

duration  
3 days

date  
20 – 22 April 2021

location  
Navi Mumbai, India – possibly online

Global competitive manufacturing hubs are critical to improve your business as it has the potential to add 7% to GDP. Further relooking our business ecosystem to cope also with the recent pandemic forces us also to optimize process efficiency. This improves both economics and sustainability of glass production without compromising quality. Here, the challenges are plenty, so let's focus & deep dive into "Glass Melting & Process Improvement" to guide into a sustainable and cost-effective glass melting process.

## Contents

- Overview of the glass melting process
- Future challenges for the glass industry
- Impact of raw materials on batch conversion
- Impact of batch redox and atmosphere on glass quality and foaming
- Measures to reduce energy consumption: combustion and heat transfer, energy benchmarking, energy balance modelling
- Measures for emission reductions: carry-over, evaporation, NOx reduction strategy
- Preservation of furnace lifetime: crown and regenerator corrosion reduction
- Classification and root cause analysis of seeds, blisters and solid inclusions

## Training methods

We offer a blended learning approach by mixing e-learning, lectures, open discussions, exercises, and case studies in teams or individually. The number of participants per course is limited to 30 to maximize your learning experience. Participants will receive the presentations, a comprehensive textbook (about 500 pages) on industrial glass technologies and a training certificate.

## Level of seniority

For experienced glass experts (> 5 years) willing to deepen their understanding on specific topics. Employees from the Indian glass industry or suppliers, in various areas.

## Investment

Training costs € 1,800€ per participant, € 1,500 for the 10 first participants registering before December 1<sup>st</sup>, 2020. Price excludes tax and duties.

## After the training

- You are aware of strategies, technologies and tools to reduce energy consumption.
- You know how to influence emissions (carry-over, dust and NOx) by raw material selection, combustion optimization and secondary techniques .
- You understand how to preserve furnace lifetime by limiting crown and regenerator corrosion.
- You recognize solid and gaseous defects and have ideas to solve a crisis and improve glass quality by batch optimization and process improvement.

We do our best to ensure that the events take place. However, CelSian reserves the right to cancel up to two weeks prior to the training, proposing new dates or refunds. Cancellation fees apply from 4 weeks before the event: more than 4 weeks before training free of charge, less than 1 week before training 50%; otherwise full price. In case of an unexpected event, we are happy to look for a voucher solution for future courses.



We welcome your questions by e-mail: [academy@celsian.nl](mailto:academy@celsian.nl) Register on [www.celsian.nl](http://www.celsian.nl)

Online access to this training can be offered and the training may be fully given online.