

General glass technology training

American June edition

duration
5 days

date
June 10 - 14

location
Toledo, Ohio, USA

The training course is an excellent introduction for new entrants to the glass industry and a perfect refresher for more experienced ones. This course contains a global overview of key glass making technologies from raw materials till the glass forming process. At the end of the training, you will have a clear view of the industrial glass production process, understanding of the current and future challenges, and plenty of ideas to optimize your process. This comprehensive course was developed in cooperation with the National Committee of the Dutch glass industry (NCNG).

Contents

- A visit to a glass factory
- Glass and furnace technology
- Glass structure and properties
- Raw materials and recycling
- Batch-to-melt conversion
- REACH directive
- Redox definitions
- Glass color
- Sulfate chemistry and fining
- Foaming
- Defects : bubbles and seeds
- Heat transfer
- Evaporation
- Furnace types and designs
- Process control
- NOx reduction
- Emissions
- Sustainability
- Electrical boosting
- Energy efficiency

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 between 8 and 20 to maximize your learning experience. Participants always receive the presentations and a training certificate.

Level of seniority

This training is meant for advanced beginners to skilled professionals willing to deepen their knowledge.

Investment

Training costs € 3.190,- per participant. This is the equivalent of 6 tons of glass. Prices include 5 lunches and 2 dinners for the on-site participants. Prices exclude the living costs of the

participants, tax and duties. The 6th participant from the same company can join for free.

- Carbon capture
- Refractory materials
- Defects: solid inclusions

After the training

- You can improve various glass properties by tuning the composition and optimizing raw materials
- You know how to react when redox-based issues occur and impact heat transfer, fining, foaming and color of the glass
- You recognize solid and gaseous defects, you know their origin and have ideas to solve a crisis
- You can select process design and operation parameters to achieve emission reduction, energy savings and improve sustainability of glass production..

We welcome your questions by e-mail: academy@celsian.nl Register on www.celsian.nl

Cancellation fees apply. 1 week before training 50%; no show, full price. In case of an unexpected event, we are happy to look for rescheduling or voucher options. CelSian reserves the right to cancel up to two weeks prior to the training, proposing new dates or refunds. Are you registering as a group? You are entitled to a 15% discount on all courses: for 5 registrations, the 6th participant can join for free.