

# Glass coloration, decoloration and color transition Introductory training

duration
4 half days

date November 4 - 7 location
Online or Eindhoven,
The Netherlands

In addition to its aesthetic purpose, glass coloration plays an important role. In packaging, color contributes to the protection of food and beverages against UV radiation. The coloration of building and automotive glazing filters IR radiation and reduces the need for air conditioning. During this course, we will review the physics and chemistry at play in glass coloration, illustrated by industrial examples. Switching from one color to another is a complex transition that must be performed quickly without damaging production, while generating as few losses and defects as possible. Ideal transitions will be presented as well as operational limits and key parameters that must be monitored during color transitions.

# **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 € 2.190,- per participant. This is the equivalent of 4 tons of glass. Price excludes tax and duties. The 6th participant from the same company can join for free.

## **Contents**

- Definition of color, colorimetry, and color spaces
- · Influence of various coloring agents on glass color
- Principle and limits of glass decoloration
- Basics of redox, control, and reduced colors
- Color transition: calculation and limitation
- Operational parameter changes during the color chang

## After the training

- You can calculate how the classic coloring agents influence the color of a glass and you can describe that color in the different colorimetric units and spaces
- You understand the principle and limits of decoloration
- You know why redox control is essential to the production of many colored glasses and how to check and act on it
- You can calculate simple color transitions and you know which operational parameters must be strictly monitored.

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.