

CelSian Practical Glass Technology Training

Eindhoven, the Netherlands 8-9 October, 2018

Introduction & Summary

CelSian offers a two-day practical course at our premises in Eindhoven, The Netherlands. The practical course is aimed at new and more experienced glass industry employees who want to understand the missing link between theory and practice, between cause and effect in everyday glass production. The course is open for employees of the glass producing industry and related suppliers. The training is given in the English language (upon request in Dutch).

Following the course, the participant will have a solid understanding of:

- 1. The influence of various raw materials on melting, fining and foaming behavior of the melt in the furnace
- 2. The influence of changed composition on important glass properties and how to measure the properties
- 3. The application of empirical tools to examine the effect of glass chemistry and properties on glass melting in the furnace
- 4. Hands-on experience of glass defect analysis

The registration fee for this two-day training course is €1500 per participant. GlassTrend member companies benefit from a reduced fee of only €1200 per participant.

All participants receive:

- A 2-day practical course in glass technology
- The practical excel sheets used

Hotel accommodation and travel costs are not included.

Once registered we apply the following cancellation rules:

- Before September 7th, 2018: free of charge

- Sep 8th – Sept. 21st, 2018: 50% of the registration fee will be charged

- Sept. 22nd – Sept. 30th, 2018: 75% of the registration fee will be charged

- No show: full registration fee will be charged.

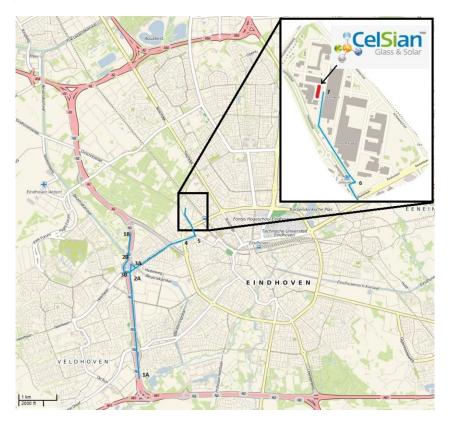
Target group

The course is meant for new entrants to the glass industry; batch and furnace operators, hot end personnel, lab personnel and R&D employees to receive a more practical understanding of glass melting. Level: medium technical.

Registration is open (online registration only)

Click <u>here</u> to register

The number of places available is limited to 10.



Location: http://tinyurl.com/jctluas

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Preliminary* Program Practical Glass Technology Course 08/10 – 09/10 2018

Place: Eindhoven, the Netherlands

Location: CelSian Glass & Solar building TZ, Zwaanstraat 1

Monday, 8 October 2018

- Welcome & Introduction;
- Laboratory experimental sessions using: batch to glass calculation tools, melting observation trials to compare influence batch chemistry on glass melting behavior;
- getting a feel for colour & viscosity;
- a look at carry over & decrepitation of raw materials;
- Glass defects analysis;
- Glass properties: empirical calculation tools;
- Illustrating impact of batch property changes on glass quality by furnace modelling.

Informal dinner in Eindhoven area

(At the invitation of CelSian Glass & Solar)

Tuesday, 9 October 2018

- Recap of 1st days lessons learned;
- Melting observation trial start up: influence of cullet quality on glass melting behaviour;
- Standard glass properties & measurement including demonstrations at Philips Innovation Laboratories (viscosity, optical measurements, XRF)
- Interpretation of melting observation trial results: bubble ascent calculations,
 Redox calculations
- Questions and answers, wrap up, feedback

Course will finish at ±17:00 hrs.

^{*}The arrangement of the different modules and the program of the visits may be subject to changes. The final program will be communicated to all the confirmed participants approximately one week prior to the beginning of the course