

TU Delft Cast glass workshop: Mould making and kiln-casting of structural glass components



Date: Wednesday 16th of May (9:00-18:30)
and Thursday 17th of May (20' during lunch break- Peek at the oven at top temperature)

Location: Glass Lab at Stevin Lab II, Civil Engineering and Geosciences, TU Delft

Price: € 495,- per person, excluding VAT.

Maximum number of participants: 20

Description:

Cast glass is a promising concept for achieving solid and robust structural glass components of increased transparency and load bearing capacity. But how can such components be made? In this workshop, first the principles of glass casting and how these can influence the design of structural glass components will be discussed. Then, the participants will learn how to produce such glass components employing the kiln-casting method, a method suitable for easily exploring different geometries. More specifically, the process from the 3D computer model to the final glass casting will be followed step by step. The participants will be taught how to make silicone moulds and wax models of free-form geometries. Then, they will learn how to produce heat-resistant moulds employing the lost-wax technique and how to kiln-cast, selecting the appropriate firing and annealing schedule. The final glass objects will be cleaned and shipped to the participants the week after.

Schedule 16/5/2018:

9:00-10:00 Introduction. The principles of glass casting and how they affect the design.

10:00-11:30 Making silica-plaster investment moulds (to be dried at 12:30)

11:30-12:00 Preparing wax models

12:00-12:30 Reinforcing silica-plaster and silicone moulds

12:30-12:45 Start steaming the silica-plaster moulds (to be steamed at 14:00)

12:45-13:30 Lunch break

13:30-14:30 Creating silicone moulds

14:30-16:30 Cleaning of silica-plaster moulds, measuring glass, cleaning glass and flowerpots

16:30-17:30 Setting up the kiln

17:30-18:15 Preparing the firing schedule

18:15-18:30 Removing the mould from the finished glass product.