Announcement

Concrete Cube Competition 2019

12.12.2019 – 17:00 o'clock – F001

Task:

A concrete cube made of exposed concrete that meets the following requirements on strength and appearance as good as possible is wanted:

- **Compressive strength class C55/67**
- **Coloring of the concrete R:G:B = 190:160:150**

For the validation of the compressive strength, the minimum compressive strength $f_{c,Ziel}$ of the defined strength class will be applied. The deviation (error E_D) is determined: $E_D = 90 \cdot |f_{c,Ziel} - f_c| \cdot (f_{c,Ziel})^{-1}$

For the validation of the concrete color, the deviation from the target value (RGB) over the resultant in the 3D coordinate system of the defined color space is determined: $E_F = 0{,}1 \cdot \sqrt{\Delta R^2 + \Delta G^2 + \Delta B^2}$

The first place goes to the cube having the lowest total error: $E_{Ges} = E_D + E_F$

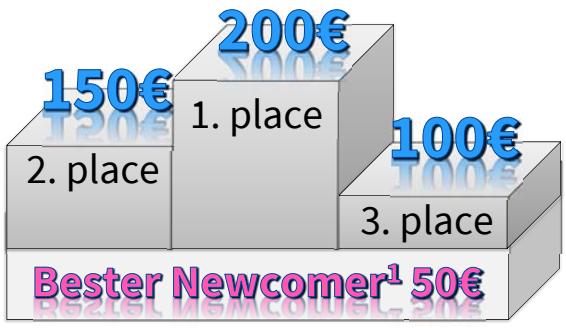
Conditions of participation:

- **cement-bound and homogenously imbued exposed concrete**
- **cube edge length = 150 mm**
- **specification on the formula and the surface to be validated**
- **preparation in the concrete lab of the Faculty of Civil Engineering**
- **registration in OPAL: cube competition**
- **group size: max. 2 students per group**
- **further hints in the OPAL module**

Dates:

06.11.2019 - 15:30 o'clock, introductory seminar, G121
01.12.2019 - registration deadline in OPAL
11.12.2019 - cube submission, F001
12.12.2019 - 17:00 o'clock, cube competition, F001

Prices:



Prices for 4. - 10. place: specialist books

[1] students from the first semester (register 2019)

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Concrete Cube Competition

Interesting Announcement 2019

New!!!!

For the first time, besides the **compressive strength**, also the **color value of the concrete cube**

(usage of a pigment common in the concrete construction)

will be involved for the evaluation.

The **color values**

(in the three-dimensional color space RGB)

and the **compressive strength**

will be measured during the event on **12.12.2019 from 17:00 o'clock** with a colorimeter and subsequently with a pressure testing machine in front of the participants and guests.

The winner criterion is the smallest total deviation from both target values.

So start with the pigments, prepare colored concrete cubes in the required strength class, and look forward to an interesting competition together with the team of the construction materials!

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