

TC09 action list

30th March 2016

The actions are recorded from the TC09 meeting on 22nd and 23rd March 2016 in Offenbach Germany.

- Richard Hulme indicated that his position within Guardian does not allow him to fulfil his role as secretary of TC09. Everybody is invited to apply for this position within TC09.
- All participants are requested to send their power-point presentations to the secretary: rhulme@guardian.com and the chair: hans.van.limpt@sibelco.com.
- Christian Roos will contact an IT specialist to ask whether they can prepare a website or a kind of 'OneDrive for Business' to share our documents in the cloud in a structured way.
- Bernhard Fleischmann will inform whether the German steel and/or cement industry would be interested to organize a joint workshop with glass companies to exchange information on energy efficiency and energy reduction programs.
- Hans van Limpt will inform whether Arcelor Mittal would be interested to organize a joint workshop with glass companies to exchange information on energy efficiency and energy reduction programs.
- Oscar Verheijen and Richard Hulme add the data of 2 Guardian float glass furnace to the benchmark database.
- Oscar Verheijen will finalize the benchmark study of float furnaces. The following aspects should be considered:
 - Impact of age;
 - Pull rate vs. logarithmic specific energy consumption;
 - Report for ICG;
 - Short paper for Glass International or Glass World-Wide.
- Sven Kahl and Hans van Limpt will visit Glass Alliance Europe (GAE) on 10th May 2016 to discuss about a possible future collaboration between GAE and TC09.
- During the meeting Hans van Limpt showed values of different theoretical energy demands of some glass types. These values are reported in public documents like the Glass BREF (EU) and GMIC/DOE reports in the USA. Theoretical values are only given for a limited number of glass compositions and only for pre-defined conditions (e.g. a fixed temperature of 1500°C) or for undefined conditions. Such theoretical values might be misinterpreted by authorities and other decision-makers. A role of TC09 is to share the correct theoretical energy demands of different batches and to show how this data can be used for the calculation of an energy balance of an industrial glass furnace. Actions:
 - Bernhard Fleischmann and Hans van Limpt will calculate the theoretical energy demands of different glass batch types. Both will use a different thermodynamic model.
 - Realistic batch compositions should be supplied to calculate the theoretical energy demands.
 - Sven Kahl will coordinate this for container glass batches in cooperation with Emre Dumankaya and Christian Roos.

- Richard Hulme will coordinate this for flat glass batches in cooperation with Emre Dumankaya, Andrew Keeley and Fabrice Fasilow.
- Wolfgang Schmidbauer will coordinate this for special glass compositions (TFT, glass ceramics) in cooperation with Hiroyuki Itazu.
- The research institutes Celsian, HVG, BG, GS, SSV and maybe DSS (Thailand) will work on a procedure that explains how the theoretical energy demand can be used for the calculation of an energy balance of an industrial glass furnace. Some examples will be given to explain this. Oscar Verheijen (Celsian) will be in the lead for this activity.