

Report of the 6th Meeting of the Informal Working Group on Panoramic Sunroof Glazing

Location: Palais des Nations, Room VII
Date: Monday, 10th October 2016, 10:00 – 16:00 CEST
Chair: Mr. Eom Sungbok (Republic of Korea), Mr. Richard Damm (Germany)
Secretary: Mr. Dr. Stephan Müller von Kralik (Germany / CLEPA)

1. Welcome and Introductions

Mr. Eom Sungbok, from KATRI (Korea Automobile Testing & Research Institute), Chair of the informal working group welcomed the participants.
22 people attended at the meeting (hereof 4 via Audio Conference).

2. Review Agenda and release minutes of 5th IWG PSG meeting and WEBEX preview meeting

The agenda for 6th meeting was presented, updated and confirmed.
The minutes of meeting on 5th meeting and on WEBEX preview meeting were presented after position 3 and released.

3. Review and discuss open items of NHTSA questionnaire and other members

Ms. Lee (KATRI) went through the updated letter question by question (white dots).

- o Matrix of KATRI on 33 breakage cases gained a question from NHTSA : If KATRI has any more data on route causes for the breakages ? => KATRI will research data.
- o Question from NHTSA in Preview meeting: *NHTSA had been informed that if the coefficients of thermal expansions for the glass panel and the frit glass were properly matched with the furnace, then there would be minimal to no loss in strength for the finished roof panel with CPA. Is this understanding correct?*
The members discussed this issue very intensively.
MPA (Dr. Dümmler) explained that the thermal expansion coefficients are strict values according to the chemical set-up of a material and that soda lime silicat glass has always the chemical structure if according to standard no matter if being used for automotive or other applications. The enamel structure of the CPA has also a distinctive thermal expansion coefficient (depending on chemical structure) and can be more or less different to float glass coefficient.
GFE will review statement of MPA with their members and GFE that it is not aware of any problems in this area.
NHTSA thinks that is should be possible to manufacture a float glass with CPA that can meet GTR 6 and FMVSS 205.
GFE confirms that glass has to comply with existing regulations.
Final summary was in line with earlier findings of the group: Glass with CPA is weaker than Glass without CPA. In parallel the group has already decided that additional tests need to be added, if glass with CPA values (to be defined) is used and GTR 6 amended.
- o Regarding Type of Testing NHTSA agrees that the 227g / 2m ball drop test is sufficient to find CPA problems based on data provided by KATRI.

Kommentar [Korea1]: I couldn't hear clearly at this point. But when I ask an expert from glazing manufacturer about this paragraph, this theory is correct.

- NHTSA and KATRI ask if the group should decide, if a new / separate / special test needs to be defined for CPA covered float glass or if existing 227g ball drop test is sufficient.
- NHTSA asked if not all glasses with CPA should then be checked in a similar manner. The members discussed and the Chairman asked the Industry and other contracting parties to review their data with regards to breakage of backlights and side panes and exchange with NHTSA.

4. Discussion of existing proposals for amendments of GTR 6

The GTR 6 version with all existing proposals (still in discussion, not agreed) was reviewed together.

Chairman asked how the IWG wants to proceed now.

The whole membership discussed in a very effective and cooperative manner with the following outcome:

- The proposal of CLEPA to correct GTR 6 in important areas based on GRSG 107-23 was reviewed and an addition (in red) was included:

Proposal

Part B, paragraph 2., Application/Scope, amend to read:

"2. This regulation applies to safety glazing intended for installation as windscreens or **panes or as partitioning**, ~~use of double windows panes, each pane is considered a separate item of glazing panes~~ on Category 1 and 2 vehicles as defined in Special Resolution No. 1 (S.R.1) concerning the Common Definitions of Vehicle Categories, Masses and Dimensions, to the exclusion however of glazing for lighting and light-signalling devices and instrument panels, and of bullet resistant glazing. In the case of double windows, each pane is considered a separate item of glazing."

Part B, paragraph 6.3.2.3., amend to read:

"6.3.2.3. The point of impact shall be within 25 mm of the **geometric** centre of the **test piece** ~~supported area~~ for a drop height less than or equal to 6 m, and within 50 mm of the centre of the ~~supported area~~ **test piece** for a drop height greater than 6 m."

- All members agreed hereto, except GFE, which asked for time to align with members and will answer via email.
- It was agreed that no other change proposal existing will be included.
- It was generally agreed that more time for research on CPA issues is needed.

5. Discussion and Decision of IWG PSG on how to proceed / closing of activities

All members agreed that the IWG PSG shall be extended until June 2018.

All members agreed that a 2-step approach shall be taken:

- a) Minor important amendments to GTR 6 released in next GRSG meeting in April 2017 (updated CLEPA proposal as in point 4).
- b) Time to do research on CPA issues with extension of Mandate for IWG PSG until June 2018

The Terms of Reference for the IWG PSG will be updated accordingly in positions 4.2. and 5 as follows:

4.2 update:

- 4.2 Chairs of the IWG will manage various aspects of the work ensuring that the agreed action plan is implemented properly and that milestones and timelines are set and met.
- (a) 2015-2016: Meeting of the IWG, regular reporting to the Administrative Committee.
 - (b) November 2016: Possible adoption of both Global Technical Regulation and UN Regulation.

- (a) IWG Meetings (depending on data availability) 2016 until June 2018
- (b) June 2018 : Possible adaption of both GTR and UN Regulation

5. update:

- 5. Scope and work items**
- 5.1 With regards to the definition of toughened glass, the IWG will review if the current definition of toughened glass is appropriate to assure the safety of panoramic sunroof and then will clearly define the mechanical properties of toughened glass, if necessary. For example, toughened glass is expected to be stronger than before what it was, i.e. before it underwent the toughening process.
- 5.2 With regards to the 227g ball drop test, the IWG will discuss the following:
- (a) Only using a 30 cm x 30 cm test piece for the 227g ball drop test.
 - (b) Using a test piece that reflects the representative characteristics of a finished product, on condition that a certain area of opaque obscuration, which is necessary for fixing the toughened glass to a vehicle, is excluded from the impact point of the toughened glass at a test.
 - (c) Clarifying and harmonizing the UN Regulation and ISO with regards to the test.
- 5.3 The IWG shall also assess whether there should be further amendments to the classification of glazing, which may be installed as windscreen, other windows of a vehicle, and sunroof.

5. The update to this position will be shown as part of the Terms of Reference update in GRSG meeting for final discussion and release by all members.

6. Any other Business

6.1 Continuation of IWG PSG decision for GRSG notification

Agreed to extend see point 5

7. Closing remarks and next meeting schedule

The Chairmen thanked the members for a really strong contribution and participation to the 6th meeting and results achieved. He hopes that the momentum of IWG PSG team will proceed into the mandate extension.

Minutes of meeting 5th and preview meeting IWG PSG and all presentations of 6th meeting will be uploaded on the Share-point.

Next meeting: Possibly a WEBEX end of November /beginning December 2016 to review GTR 6 amendment and procedure to be released by members – invitation by Secretary mid of November 2016
