

Submitted by the Chair of the IWG on
Panoramic Sunroof Glazing (PSG)

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agenda item 17)

Terms of Reference and Rules of Procedure for the Informal Working Group on Panoramic Sunroof Glazing (PSG)

Submitted by the expert from the Republic of Korea

This document below contains a proposal to **continue** an informal working group on Panoramic Sunroof Glazing (PSG). The aim is to **research, if a development of a further ~~an~~ amendment to relevant parts of UN Regulation No. 43 and UN GTR No. 6 is necessary**, so that appropriate methods could be clarified for testing and evaluating Panoramic Sunroof Glazing.

Terms of reference and rules of procedure for the Informal Working Group on Panoramic Sunroof Glazing (PSG)

1. Background

- 1.1 The Government of the Republic of Korea conducted a defects investigation of panoramic sunroof in 2013 due to a sharp increase in consumer complaints about the safety of panoramic sunroof. Results of the investigation confirmed that the ceramic printed area of panoramic sunroof is particularly vulnerable in terms of its mechanical strength and does not meet the requirements under UN GTR 6. The Government of the Republic of Korea subsequently reported the results of its defects investigation of panoramic sunroof through an informal document (WP.29-162-15) during WP.29 in its March 2014 session and another informal document (GRSG-106-21) during the GRSG meeting held in May 2014.
- 1.2 Following that, the Government of the Republic of Korea proposed to develop an amendment to UN GTR No. 6, which clarifies the definition of toughened glass and revises the methods (227g ball drop test) for testing and evaluating the mechanical strength of toughened glass at the 107th GRSG meeting in September 2014. The Government of the Republic of Korea also proposed establishment of an IWG to develop an amendment to the relevant parts of UN GTR No. 6, and that proposal was endorsed by GRSG.
- 1.3 Once established, the new IWG will invite all parties to join the group and share their experiences in developing relevant regulatory requirements and gauging market responses. Participants of the group will exchange information on the direction of the safety glazing technology development so that the technology can measure up to future regulatory requirements.
- 1.4 The Government of the Republic of Korea will actively participate as a technical sponsor in the development of amendments to UN GTR No. 6 and UN Regulation No. 43.

2. Objective

- 2.1 The main objective of this proposal is to develop, in the framework of the 1998 Agreement, an amendment to UN GTR No. 6 on Safety Glazing concerning clarification of the methods (e.g. 227g ball drop test), etc. for testing and evaluating the mechanical strength of toughened glass so that the safety of a panoramic sunroof is assured.
- 2.2 The representative of the Republic of Korea proposes ~~to continue the establishing a new~~ Informal Working Group (IWG) on safety glazing under the Working Party on General Safety Provision (GRSG). The ~~new~~ IWG will ~~continue to~~ discuss appropriate methods for testing and evaluating the mechanical strength of an opaque obscuration area (ceramic printed area) of toughened glass compared to other areas of it in search of a possible weaker strength of the opaque area caused by its ceramic printing process. If the current methods for testing and evaluating the mechanical strength of toughened glass of panoramic sunroof are not considered to be appropriate, the IWG will discuss possible amendments to the relevant parts of UN GTR No. 6.

3. Terms of reference

- 3.1 The following Terms of Reference describe the main tasks that will be performed by the IWG for developing an amendment to Panoramic Sunroof Glazing (PSG).

The IWG for PSG shall:

- (a) Continue to identify and collect the information and the research data on mechanical strength characteristic of toughened glass, taking into account the activities being carried out by governments, non-governmental organizations, and universities around the world.
- (b) Identify and understand the current existing regulations and international voluntary standards concerning the methods of testing and evaluating toughened glass with a focus on safety glazing.
- (c) Review, assess, and develop appropriate methods of testing and evaluating the mechanical strength of toughened glass with a focus on safety glazing.
- (d) Develop amendments to UN GTR No. 6 and a complementing proposal to UN Regulation No. 43 in order to further clarify appropriate methods of testing and evaluating the mechanical strength of toughened glass with a focus on safety glazing and to clarify the scope of GTR
- (e) Stay abreast of relevant issues arising through a channel of regular dialogue and expert presentations.

4. Timeline

- 4.1 The plan will regularly be reviewed and updated to reflect the latest development in terms of progress and the feasibility of the timeline.

~~(a) May 2015: Kick-off meeting of the IWG. Discussion on Term of Reference and on composition of Chair, Co-Chair, and secretaries for IWG;~~

~~(b) Nov 2015: 167th session of WP.29 adoption of Terms of Reference for IWG.~~

- 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) ~~2016 2015-2016~~ **June 2018**: Meeting of the IWG, regular reporting to the Administrative Committee.

(b) ~~November 2016~~ **June 2018**: Possible adoption of both Global Technical Regulation and UN Regulation.

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 and then will clearly define the mechanical properties of toughened glass (especially for panoramic sunroof glazing), if necessary. For example, toughened glass is expected to be stronger than before what it was, i.e. before it underwent the toughening process.

The work of the IWG will follow a 2-step approach splitting the working tasks in paragraphs 5.2 and 5.3 into short-term (5.3) and medium-term (5.2) activities. For the task in paragraph 5.2 the IWG will review further work to be undertaken to understand better the effects for improving safety of panoramic sunroof glazing.

5.2 Step 2

With regards to the 227g ball drop test, the original task of IWG will be extended to take further research results into account to 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.
- (d) Decision on other test procedures to complement the 227g ball drop test.

5.3 Step 1

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.

6. Rules of procedure

- 6.1 The following rules of procedure describe the functioning principles of the ~~new~~ informal working group:

- (a) The IWG is open to all participants from any country or organization of WP.29 and its subsidiary bodies. A limitation on the number of participants for the IWG is not foreseen.
- (b) Chair (Republic of Korea), Co-chair (Germany) and a secretary (CLEPA) will manage the IWG.
- (c) The official language of the IWG will be English.
- (d) All documents and/or proposals shall be submitted to the secretary of the group in a suitable electronic format, preferably in line with the UNECE guidelines in advance of the meetings. The group may refuse to discuss any item or proposal which has not been circulated five (5) working days in advance of the scheduled meeting.
- (e) The informal group shall meet regularly in conjunction with the GRSG sessions, presuming the availability of meeting rooms. Additional meetings will be organized upon demand.
- (f) An agenda and related documents will be circulated to all members of the informal working group in advance of all scheduled meetings.

- (g) The work process will be developed by consensus. When consensus cannot be reached, the Chair of the informal group shall present the different points of view to GRSG. The Chair may seek guidance from GRSG as appropriate.
- (h) The progress of the informal group will be routinely reported to GRSG orally or as an informal document by the Chair or the secretary.
- (i) All working documents shall be distributed in digital format. The specific PSG section on the UNECE website shall continue to be utilized.