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**Economic Commission for Europe****Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****166<sup>th</sup> session**

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Item 17.2 of the provisional agenda

**1998 Agreement – Progress on the development  
of new gtrs and of amendments to established gtrs****Authorization to develop amendments to gtr No. 6 (Safety  
glazing)****Submitted by the representative of the Republic of Korea\***

The text reproduced below was submitted by the representative of the Republic of Korea as the technical sponsor for amending gtr No. 6. It was adopted by the Executive Committee (AC.3) of the 1998 Agreement at its March 2015 session (ECE/TRANS/WP.29/1114, para. 115). It is based on ECE/TRANS/WP.29/2015/42. This authorization is transmitted to the Working Party on General Safety (GRSG). In accordance with the provisions of paragraphs 6.3.4.2, 6.3.7 and 6.4 of the 1998 Agreement, this document shall be appended to any new and/or amended global technical regulation once adopted.

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\* In accordance with the programme of work of the Inland Transport Committee for 2012–2016 (ECE/TRANS/224, para. 94 and ECE/TRANS/2012/12, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

## **Authorization to develop amendments to gtr No. 6 (Safety glazing)**

### **A. Objective**

1. The main objective of this proposal is to develop, in the framework of the 1998 Agreement, an amendment to global technical regulation (gtr) No. 6 on safety glazing. It aims at clarifying the testing and evaluating methods (e.g. 227 g ball drop test) and determining the mechanical strength of toughened glass so that the safety of a panoramic sunroof is assured.

2. The representative of the Republic of Korea proposes establishing a new Informal Working Group (IWG) on safety glazing under the Working Party on General Safety Provision (GRSG). The IWG will discuss appropriate methods for testing and evaluating the mechanical strength of a glazing part that is weaker than other parts, such as the opaque obscuration area (ceramic printed area). Should the existing standards be determined inappropriate to assess the mechanical strength of a toughened glass that constitutes a panoramic sunroof, the IWG will proceed to discuss relevant directions for amending the rules and provisions of gtr No. 6.

### **B. Background**

3. The Government of the Republic of Korea had conducted a defect 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, thus, does not meet the requirements of gtr No. 6. The Government of the Republic of Korea reported on the results of its defect investigation of panoramic sunroof at the March 2014 session of WP.29 on the basis of informal document WP.29-162-15 and also the Working Party on General Safety Provisions (GRSG) at its May 2014 session with informal document GRSG-106-21.

4. Subsequently, the Government of the Republic of Korea proposed to develop an amendment to gtr No. 6 to clarify the existing definition of toughened glass and to revise the methods (227 g ball drop test) for testing and evaluating the mechanical strength of toughened glass at the 107<sup>th</sup> session of GRSG in September 2014. The Government of the Republic of Korea also proposed the establishment of an IWG to develop an amendment to the relevant parts of gtr No. 6. That proposal was endorsed by GRSG.

5. Once established, the new IWG will invite all parties to join the group and share their experiences regarding the development of relevant regulatory requirements and market responses. Participants of the group will exchange information on the direction of safety glazing technology development and discuss possible ways to strengthen future regulatory requirements.

6. The Government of the Republic of Korea will actively participate in the IWG as a technical sponsor to develop necessary amendments to gtr No. 6 and, if necessary, to Regulation No. 43.

### C. Subject of tasks to be undertaken by the new IWG

7. With regards to the definition of toughened glass, the IWG will review the issue of whether the current definition of toughened glass is appropriate to assure the safety of panoramic sunroofs. If further clarification of the existing definition is deemed necessary, it will proceed to more clearly define the mechanical properties of toughened glass. One way to do so would be to mandate toughened glass to be stronger than its former state, i.e. before the toughening process.
8. Concerning the 227 g ball drop test, the IWG will discuss methodologies as follows:
  - (a) Setting the target of the strength test to be limited to a testing piece of the size of 30 cm x 30 cm only;
  - (b) Allowing the testing piece to represent the characteristics of the finished product of a window glass, provided that the ceramic coated area, necessary for fixing and obscuring the glass at a minimum level, is excluded from the point of impact of a ball drop test;
  - (c) Eliminating any discrepancies with other relevant regulations (e.g. Regulation No. 43).
9. In addition, the IWG may review whether further amendments would be necessary such as a review of the existing categorization of glazing applicable to windscreens, to glazing other than windscreens, and to sunroofs of vehicles.

### D. Timeline

10. The proposed action plan will regularly be reviewed and updated to reflect the progress of work and the feasibility of the timeline:
  - (a) 11-14 November 2014: At the 164th session of WP.29, request to establish an IWG on safety glazing submitted to AC.3;
  - (b) 10-13 March 2015: At the 165th session of WP.29, official adoption by AC.3 of the establishment of the IWG on safety glazing;
  - (c) May 2015: Kick-off meeting of the IWG. Discussion on the Terms of Reference and proposal for the composition of the Chair, Vice-Chair and secretaries of the IWG.
  - (d) May 2015: Meeting of the IWG in conjunction with the 108th session of GRSG. Final decision of the Terms of Reference and election of Chair, Vice Chair and secretaries of the IWG. Adoption by GRSG of Terms of the Reference for the IWG.
  - (e) June 2015: At the 166th session of WP.29, endorsement by AC.3 of the Terms of Reference for the IWG on safety glazing.
11. The Chairs of IWG will manage various aspects of the tasks, ensuring that the agreed action plan is implemented according to its goals and that the work schedules are met properly.
  - (a) 2015-2016: Meetings of the IWG and regular reports to AC.3.
  - (b) November 2016: Consideration and adoption of the amendments to gtr No. 6 and, if necessary, to Regulation No. 43.