



# Economic and Social Council

Distr.: General  
18 December 2019

Original: English

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## Economic Commission for Europe

### Inland Transport Committee

### World Forum for Harmonization of Vehicle Regulations

#### 180th session

Geneva, 10–12 March 2020

Item 14.2.2 of the provisional agenda

**Consideration and vote by AC.3 of draft UN GTRs  
and/or draft amendments to established UN GTRs**

**Proposal for Amendments to a UN GTR, if any**

## **Proposal for Amendment 2 to UN Global Technical Regulation No. 6 (Safety glazing)**

### **Submitted by the experts from the Working Party on General Safety\***

The text reproduced below was adopted by the Working Party on General Safety (GRSG) at its 117th session (ECE/TRANS/WP.29/GRSG/96, para. 21). It is based on ECE/TRANS/WP.29/GRSG/2019/35. It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Executive Committee (AC.3) of the 1998 Agreement for consideration at their March 2020 sessions.

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\* In accordance with the programme of work of the Inland Transport Committee for 2020 as outlined in proposed programme budget for 2020 (A/74/6 (part V sect. 20) para 20.37), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

## Amendment 2 to UN Global Technical Regulation No. 6 (Safety glazing)

Paragraph 4.1.2.2.2., amend to read:

"4.1.2.2.2. "XI" for laminated glass. In addition, the appropriate application will be signified by:

/D For laminated-glass panes with enhanced mechanical properties

Paragraph 5., Table 1 (Summary of performance requirements), amend to read:

	Windscreens			Panes					
	Laminated glass		Glass plastics	Uniformly toughened glass		Laminated glass		Double glazed unit 1/	Glass plastics
Marking	II	II/P	IV		/P	XI	XI/P	V	XII
Light transmittance	5.1.1.	5.1.1.	5.1.1.	5.1.1.	5.1.1.	5.1.1.	5.1.1.	5.1.1.	5.1.1.
Resistance to abrasion	5.1.2.	5.1.2.	5.1.2.		5.1.2.	5.1.2.	5.1.2.		5.1.2.
Resistance to temperature changes		5.2.1.	5.2.1.		5.2.1.		5.2.1.		5.2.1.
Resistance to fire		5.2.2.	5.2.2.		5.2.2.		5.2.2.		5.2.2.
Resistance to chemicals		5.2.3.	5.2.3.		5.2.3.		5.2.3.		5.2.3.
Resistance to radiation	5.3.1.	5.3.1.	5.3.1.		5.3.1.	5.3.1.	5.3.1.		5.3.1.
Resistance to high temperature	5.3.2.	5.3.2.	5.3.2.		5.3.2.	5.3.2.	5.3.2.		5.3.2.
Resistance to humidity	5.3.3.	5.3.3.	5.3.3.		5.3.3.	5.3.3.	5.3.3.		5.3.3.
Optical distortion	5.4.1.	5.4.1.	5.4.1.						
Image separation	5.4.2.	5.4.2.	5.4.2.						
Fragmentation				5.5.1.1.	5.5.1.1.				
Head-form	5.4.3. 2/	5.4.3. 2/	5.4.3. 2/			5.5.2.2 3/	5.5.2.2. 3/	5.5.3.2. 2/	
2,260 g Ball	5.4.4.	5.4.4.	5.4.4.			5.5.2.3 3/	5.5.2.3. 3/		
227 g Ball	5.4.5.	5.4.5.	5.4.5.	5.5.1.2.	5.5.1.2.	5.5.2.1.	5.5.2.1.		5.5.2.1

1/ Each component pane shall satisfy the appropriate tests for the type of glazing.

2/ See paragraph 4.2.2.

3/ These tests shall only be carried out on laminated-glass panes bearing the additional symbol /D."

Insert new paragraphs 5.5.2.2. to 5.5.2.3.3.2. to read:

"5.5.2.2. Headform Test

The provisions concerning the headform test shall apply to laminated-glass panes bearing the additional symbol /D.

5.5.2.2.1. Number of test pieces

Eight flat test pieces measuring (1,100 mm x 500 mm) +10mm/-2mm shall be subjected to testing.

5.5.2.2.2. Test method

5.5.2.2.2.1. The method used shall be that described in paragraph 6.5.

5.5.2.2.2.2. The height of drop shall be 1.50 m  $\pm$   $\frac{0}{5}$  mm.

5.5.2.2.3. Interpretation of results

- 5.5.2.2.3.1. This test shall be deemed to have given a satisfactory result if the following conditions are met:
- 5.5.2.2.3.1.1. The test piece yields and breaks, displaying numerous circular cracks centered approximately on the point of impact,
- 5.5.2.2.3.1.2. Tears in the interlayer are allowed, but the manikin's head shall not pass through,
- 5.5.2.2.3.1.3. No large fragments of glass shall become detached from the interlayer.
- 5.5.2.2.3.2. A set of test pieces submitted for approval shall be considered satisfactory from the point of view of the head form test if, at least seven of the eight test pieces meet the requirements."

*Insert new paragraphs 5.5.2.3. to 5.5.2.3.3.2., to read:*

"5.5.2.3. 2,260 g Ball Test

The provisions concerning the 2,260g ball test shall apply to laminated-glass panes bearing the additional symbol /D.

- 5.5.2.3.1. Twelve square test pieces of 300 mm side shall be subjected to testing.
- 5.5.2.3.2. Test method
- 5.5.2.3.2.1. The method used shall be that described in paragraph 6.4.
- 5.5.2.3.2.2. The height of drop (from the under-face of the ball to the upper-face of the test piece) shall be 4 m +25/-0mm.
- 5.5.2.3.3. Interpretation of results
- 5.5.2.3.3.1. The test shall be deemed to have given a satisfactory result if the ball does not pass through the glazing within five seconds after the moment of impact.
- 5.5.2.3.3.2. A set of test pieces submitted for approval shall be considered satisfactory from the point of view of the 2,260 g ball test if at least eleven of the twelve tests have given a satisfactory result."
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