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|  | United Nations | ECE/TRANS/WP.29/GRSG/2022/4 | |
| _unlogo | **Economic and Social Council** | | Distr.: General  13 January 2022  Original: English |

**Economic Commission for Europe**

Inland Transport Committee

**World Forum for Harmonization of Vehicle Regulations**

**Working Party on General Safety Provisions**

**123rd session**

Geneva, 28 March–1 April 2022

Item 3 (b) of the provisional agenda

**Amendments to Safety glazing Regulations:**

**UN Regulation No. 43 (Safety glazing)**

Proposal for Supplement 10 to the 01 Series of amendments of UN Regulation No. 43

Submitted by the expert from France [[1]](#footnote-2)\*

The text reproduced below was prepared by the expert from France to amend UN Regulation No. 43 to solve a potential inconsistency regarding abrasion test requirements for flexible plastics other than windscreen. It is based on informal document GRSG-122-32 distributed at the 122nd session of the Working Party on General Safety Provisions (GRSG). The modifications to the current text of the UN Regulation are marked in bold for new and strikethrough for deleted characters.

I. Proposal

*Paragraph 8.2.1.2.*, amend to read :

"8.2.1.2. Plastic glazing materials shall be subjected to the tests listed in the following table. In the case of the abrasion test, the applicant shall have the alternative between the Taber test and the set of three tests composed of the carwash, sand drop and the wiper test.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Test* | *Windscreens* | | | *Plastics other than windscreens* | | | | | | |
| *Rigid plastics* | *Laminated-rigid plastics* | | *Rigid plastics* | | *Laminated rigid plastics* | | *Multiple glazing* | |  |
|  | *Motorised vehicles* | | | *Motorised vehicles* | *Trailers and unoccupied vehicles* | *Motorised vehicles* | *Trailers and unoccupied vehicles* | *Motorised vehicles* | *Trailers and unoccupied vehicles* | *Flexible plastics* |
| Flexibility | A3/12 | | A3/12 | A3/12 | A3/12 | A3/12 | A3/12 | A3/12 | A3/12 | A3/12 |
| 227 g ball | A17/5 | | A19/5.2 | A14/5 | A14/5 | A18/5 | A18/5 | A16/5 | A16/5 | A15/4 |
| 2,260 g ball | - | | A19/5.1 |  |  |  |  |  |  |  |
| Headform 1 | A17/4 | | A19/4 | A14/4 | - | A18/4 | - | A16/4 | - | - |
| Light transmission 2 | A3/9.1 | | A3/9.1 | A3/9.1 | - | A3/9.1 | - | A3/9.1 | - | A3/9.1 |
| Optical distortion | A3/9.2 | | A3/9.2 | - | - | - | - | - | - | - |
| Secondary image | A3/9.3 | | A3/9.3 | - | - | - | - | - | - | - |
| Fire resistance | A3/10 | | A3/10 | A3/10 | A3/10 | A3/10 | A3/10 | A3/10 | A3/10 | A3/10 |
| Chemical resistance | A3/11 | | A3/11 | A3/11. | A3/11 | A3/11 | A3/11 | A3/11 | A3/11 | A3/11.2.1 |
| Abrasion 3 | A17/6.1 | | A19/6.1 | A14/6.1 | - | A18/6.1 | - | A16/6.1 | - | **~~-~~** ~~A16/6.1~~ |
| Weathering | A3/6.4 | | A3/6.4 | A3/6.4 | A3/6.4 | A3/6.4 | A3/6.4 | A3/6.4 | A3/6.4 | A3/6.4 |
| Humidity | A17/6.4 | | A19/6.4 | A14/6.4 | A14/6.4 | A18/6.4 | A18/6.4 | A16/6.4 | A16/6.4 | - |
| Cross-cut 2 | A3/13 | | A3/13 | A3/13 | - | A3/13 | - | A3/13 | - | - |
| High temperature | - | | A3/5 | - | - | A3/5 | - | - | - | - |
| Radiation resistance | - | | A3/6 | - | - | A3/6 | - | - | - | - |
| Resistance to temperature changes | - | | A3/8 | - | - | - | - | - | - | - |

1 Test requirements are dependent on the location of the glazing within the vehicle.

2 Applies only if the glazing is to be used in a location requisite for driving visibility.

3 Either Taber test or the set of sand drop, carwash and wiper test."

II. Justification

1. The experts from France submit the above proposal to GRSG experts to solve a potential inconsistency regarding abrasion test requirements for flexible plastics other than windscreen.

2. In paragraph 8.2.1.2., the tests listed in the table mention specifications of abrasion for flexible plastics under annex 16, paragraph 6.1 addressing rigid plastic multiple glazed units.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Test* | *Windscreens* | | | *Plastics other than windscreens* | | | | | | |
| *Rigid plastics* | *Laminated-rigid plastics* | | *Rigid plastics* | | *Laminated rigid plastics* | | *Multiple glazing* | |  |
|  | *Motorised vehicles* | | | *Motorised vehicles* | *Trailers and unoccupied vehicles* | *Motorised vehicles* | *Trailers and unoccupied vehicles* | *Motorised vehicles* | *Trailers and unoccupied vehicles* | *Flexible plastics* |
| Flexibility | A3/12 | | A3/12 | A3/12 | A3/12 | A3/12 | A3/12 | A3/12 | A3/12 | A3/12 |
| 227 g ball | A17/5 | | A19/5.2 | A14/5 | A14/5 | A18/5 | A18/5 | A16/5 | A16/5 | A15/4 |
| 2,260 g ball | - | | A19/5.1 |  |  |  |  |  |  |  |
| Headform 1 | A17/4 | | A19/4 | A14/4 | - | A18/4 | - | A16/4 | - | - |
| Light transmission 2 | A3/9.1 | | A3/9.1 | A3/9.1 | - | A3/9.1 | - | A3/9.1 | - | A3/9.1 |
| Optical distortion | A3/9.2 | | A3/9.2 | - | - | - | - | - | - | - |
| Secondary image | A3/9.3 | | A3/9.3 | - | - | - | - | - | - | - |
| Fire resistance | A3/10 | | A3/10 | A3/10 | A3/10 | A3/10 | A3/10 | A3/10 | A3/10 | A3/10 |
| Chemical resistance | A3/11 | | A3/11 | A3/11. | A3/11 | A3/11 | A3/11 | A3/11 | A3/11 | A3/11.2.1 |
| Abrasion 3 | A17/6.1 | | A19/6.1 | A14/6.1 | - | A18/6.1 | - | A16/6.1 | - | A16/6.1 |
| Weathering | A3/6.4 | | A3/6.4 | A3/6.4 | A3/6.4 | A3/6.4 | A3/6.4 | A3/6.4 | A3/6.4 | A3/6.4 |
| Humidity | A17/6.4 | | A19/6.4 | A14/6.4 | A14/6.4 | A18/6.4 | A18/6.4 | A16/6.4 | A16/6.4 | - |
| Cross-cut 2 | A3/13 | | A3/13 | A3/13 | - | A3/13 | - | A3/13 | - | - |
| High temperature | - | | A3/5 | - | - | A3/5 | - | - | - | - |
| Radiation resistance | - | | A3/6 | - | - | A3/6 | - | - | - | - |
| Resistance to temperature changes | - | | A3/8 | - | - | - | - | - | - | - |

3. In the opposite, abrasion tests seem not technically applicable to flexible plastics and are not required in annex 15, only focusing on flexible plastic panes.

4. This proposal aims to clarify this status by replacing the reference in paragraph 8.2.1.2. table "A16/6.1" by a single dash " – ".

1. \* In accordance with the programme of work of the Inland Transport Committee for 2022 as outlined in proposed programme budget for 2022 (A/76/6 (part V, sect. 20) para. 20.76), 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. [↑](#footnote-ref-2)