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Global registry

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Addendum 6: Global technical regulation No. 6

Safety glazing materials for motor vehicles and motor vehicle equipment

Amendment 1 - Appendix 1

Proposal and report pursuant to Article 6, paragraph 6.3.7. of the Agreement

- Proposal to develop Amendments to global technical regulation No. 6 (Safety Glazing) (ECE/TRANS/WP.29/AC.3/27).
- Report on the proposal of Amendment 1 to global technical regulation No. 6 (Safety glazing) (ECE/TRANS/WP.29/2011/44).



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Proposal to develop amendments to global technical regulation No. 6 (Safety glazing)

I. Statement of technical rationale and justification

A. Introduction

1. The objective of this proposal is to amend global technical regulation (gtr) No. 6 regarding safety glazing materials for motor vehicles and motor vehicle equipment.
2. The technical provisions of gtr No. 6 are intended to ensure a good view of the road to the driver without causing any distortion in his vision. It also ensures that objects or stones thrown against the glazing do not penetrate into the occupant compartment and that occupants are not ejected in the event of a crash.
3. The proposed draft global technical regulation (Re: ECE/TRANS/WP.29/2008/47) was established in the Global Registry on 12 March 2008 by consensus of the Contracting Parties and published under the symbol ECE/TRANS/180/Add.6 and its Appendix 1.
4. At the March 2008 Session of the Executive Committee, the European Community as a Contracting Party of the 1998 Agreement voted in favour of establishing that global technical regulation.
5. As of 19 November 2008, the European Commission has begun its consultations with a view to including the technical provisions of gtr No.6 into UNECE Regulation No. 43 as the European Union has the intention to repeal its own legislation on safety glazing materials and to replace it by that Regulation as amended.
6. On 2 April 2009, the European Association of Automotive Suppliers (CLEPA) and the association Glass for Europe (GFE, ex-GPVP, Association of Flat Glass manufacturers) which includes major companies active in the automotive sector, AGC Glass Unlimited, Pilkington NSG Group flat glass business, Saint-Gobain Glass, SISECAM, together with Guardian Europe drew the attention of the European Commission on the consequences of transferring into UNECE Regulation No. 43 the general requirements on markings included in Paragraph 4 of Part B of gtr No. 6.

B. Justification of changes

7. The unique change can be summarized as follows:
Amend "Paragraph 4.1.2. Identification marks"
8. With respect to safety glazing materials, the marking refers to the nature and to the main characteristics of the safety glazing materials. It allows a clear identification of the products installed on a vehicle, which facilitates checks by the authorities in charge of vehicle type approval or registration of vehicles. These mechanisms have been in force in Europe for decades and have proved to work to the satisfaction of the governmental authorities and the industry. On these grounds the group of experts on safety glazing decided to include such a nomenclature in the proposal for a gtr. The logic of the sequence of numbers was at that time recognized and agreed.
9. The main identifier for the nature of the safety glazing is the roman figure at the beginning of the marking. In Contracting Parties applying Regulation No. 43 the roman

figure supplements the type approval number reflecting the approval granted to the type of the safety glazing material (see an example in the annex to this document).

10. It appears as a matter of fact that the nomenclature in gtr No. 6 differs slightly from the one which is included in the current version of UNECE Regulation No. 43.

11. Following an in-depth assessment of the technical requirements of gtr No. 6, it appears that there are only a small number of substantial technical changes to be brought to the current European legislation. As a consequence and from the practical perspective manufacturers would have just to update their approvals after gtr No. 6 has been transposed into UNECE Regulation No. 43. In most cases, it would be sufficient to update type approval certificates. Such operation does not lead either to a change in the type approval number nor in the marking.

12. For the production of windscreens and glazing panes no change in the marking of the products would be necessary, which means no change in the production tools.

13. By contrast if the codification system of the safety glazing is to be changed because of the transposition of the gtr into UNECE Regulation No. 43 most of the markings would be affected. Consequently a huge number of adaptations to the production tools would have to be made, which in turn would lead to higher costs for negligible benefits.

14. In addition, the fact of having different markings for the same physical product would be confusing to everybody.

15. When considering the arguments presented by professional associations of the sector, the European Community has noted that no transposition of gtr No. 6 has been so far completed. The European Community can assume that changes in the production process have not yet been planned, which gives Contracting Parties sufficient room and time for reviewing the nomenclature of the codification system.

16. In its proposal, the European Community sought to minimize the number of changes as far as possible. A meaningful example is given in the annex to this document to illustrate the change in the marking of tempered glass panes which would be necessary.

17. To sum up, the purpose of this proposal is to suggest adopting a revised nomenclature in Paragraph 4 of Part B of gtr No. 6, Paragraph 4.1.2. "Identification marks", which would bring them in line with the current system in use for safety glazing compliant with UNECE Regulation No. 43.

18. No change to the current markings would therefore be required from the Contracting Parties applying UNECE Regulation No. 43.

19. The annex to this document provides one example of change in the marking structure for Contracting Parties applying UNECE Regulation No. 43

Annex ¹

I. Change in the type approval marking in accordance with UNECE Regulation No. 43

A. Current marking



43 R - 002439

Approval number for uniformly toughened glass in accordance with the current provisions of UNECE Regulation No. 43.

B. Future marking



43 R - 002439

Approval number for the same glazing in accordance with the future UNECE Regulation No. 43 (i.e. as in gr No. 6).

¹ This Annex is not part of the proposal. It has the sole purpose of illustrating the problem raised.

II. Proposed amendments to gtr No. 6

Paragraphs 4.1.2.1. to 4.1.2.3., amend to read:

- 4.1.2.1. Identification marks for windscreens.
 - 4.1.2.1.1. "II" for laminated-glass.
 - 4.1.2.1.2. "~~III~~" "IV" for glass-plastics.
- 4.1.2.2. Identification marks for panes.
 - 4.1.2.2.1. "I" **no symbol** is required for uniformly toughened glass.
 - 4.1.2.2.2. "~~IV~~" "XI" for laminated glass.
 - 4.1.2.2.3. "V" "VI" for a double glazed unit.
 - ~~4.1.2.2.4. "VI" for glass plastics.~~
- 4.1.2.3. Additional identification marks.
 - 4.1.2.3.1. Glazing faced with plastic shall be marked with "/P" after the mark required by paragraph 4.1.2.1. or 4.1.2.2., e.g., II/P.
 - 4.1.2.3.2. Glazing with a light transmission of less than 70 per cent shall be marked with "~~RLT~~" "/V" after the mark required by paragraph 4.1.2.2., e.g. I/RLT.
 - 4.1.2.3.3. If glazing requires both the "/P" and the "~~RLT~~" "/V", the mark required by paragraph 4.1.2.3.1 shall precede the mark required by paragraph 4.1.2.3.2."

Report on the proposal of Amendment 1 to global technical regulation No. 6 (Safety glazing)

I. Introduction

20. The objective of this proposal is to amend global technical regulation (gtr) No. 6 regarding safety glazing materials for motor vehicles and motor vehicle equipment (hereafter, safety glazing materials).

21. The technical provisions of gtr No. 6 are intended to ensure a good view of the road to the driver of a vehicle without causing distortion of his vision. It also ensures that objects or stones thrown against the glazing do not penetrate with a high speed into the occupant compartment and that the occupants are not ejected through the windscreen in the event of a crash.

22. The draft global technical regulation on safety glazing materials (ECE/TRANS/WP.29/2008/47) was established in the Global Registry on 12 March 2008 by consensus of the Contracting Parties and published under the reference ECE/TRANS/180/Add.6 and its Appendix 1.

23. At the March 2008 session of the Executive Committee of the 1998 Agreement (AC.3), the European Union as a Contracting Party voted in favour of establishing that global technical regulation.

24. As of 19 November 2008, the European Commission started consultations with a view to including the technical provisions of gtr No. 6 into UNECE Regulation No. 43. As part of its policy of simplification of the legislation of the European Union in the field of the automotive sector, Directive 92/22/EEC on safety glazing materials will be repealed from 1 November 2014 and the requirements of Regulation No. 43, as amended, will be made mandatory.

25. On 2 April 2009, the European Association of Automotive Suppliers (CLEPA) and the association Glass for Europe (GFE, ex-GPVP, Association of Flat Glass manufacturers) which includes major companies active in the automotive sector - AGC Glass Unlimited, Pilkington NSG Group flat glass business, Saint-Gobain Glass, SISECAM, together with Guardian Europe - drew the attention of the European Commission on the consequences for the glass industry of transferring certain requirements of gtr No. 6 into UNECE Regulation No. 43.

26. In particular, the key-issue, which was identified by the industry, regarding the general requirements on markings included in paragraph 4 of Part B of gtr No. 6. A practical consequence for the industry would be the need for changing most of the markings that identify the nature of the glass.

27. In that respect, the requirements of gtr No. 6 differ significantly from Regulation No. 43, which is currently in use in many Contracting Parties and in particular in the 27 Member States of the European Union.

28. The marking in question identifies the nature and the main characteristics of the safety glazing material by a roman figure and additional symbol(s). It allows a clear identification of the products installed on a vehicle, which facilitates checks by the governmental authorities in charge of vehicle type-approval or registration of vehicles. These practices are in place in Europe for decades and have proved to work to the satisfaction of the authorities.

29. On these grounds the group of experts who prepared the draft proposal on safety glazing materials decided to include a similar nomenclature in the proposal for a gtr. The logic of the sequence of numbers was at that time recognized and agreed.
30. The main identifier used for the nature of the safety glazing is the roman figure at the beginning of the marking. In Contracting Parties applying Regulation No. 43, the roman figure supplements the type-approval number reflecting the approval granted to a type of the safety glazing material (see a typical example in Annex I to ECE/TRANS/WP.29/AC.3/27).
31. The assessment of the technical requirements included in gtr No. 6 compared to the current version of Regulation No. 43 is that there are only a small number of technical changes to be brought to the current legislation. As a consequence and from the practical point of view, safety glazing materials manufacturers would have just to update their approvals after gtr No. 6 has been transposed into UNECE Regulation No. 43. In most cases, it would be sufficient to update technical documentation, operation that does not lead either to a change in the type-approval number nor in markings to be put on glass panes or windscreens.
32. With respect to the production process, no change in the marking of the products would thus be necessary, which in turn means no change in the production tools.
33. However, if the nomenclature of the materials used for safety glazing would have to be changed, because of the transposition of the gtr into UNECE Regulation No. 43, most of the markings would be affected with the major consequence that a huge number of adaptations of the production tooling would have to be made, which would lead to high costs for benefit in no respects.
34. In addition, the fact of having different markings for the same physical product would be confusing.
35. When considering the arguments presented by the professional associations of the sector, the European Union took into account that none of the transposition of gtr No. 6 were completed at that time. The European Union felt therefore comfortable with the assumption that changes in the production process were not yet planned, which gives the Contracting Parties sufficient time for reviewing the nomenclature of the codification system.
36. Based on the above, the European Union decided to submit a proposal to AC.3 with a view to amend the markings in gtr No. 6.

II. History of the file

37. The proposal to develop an amendment to gtr No. 6 was first submitted to AC.3 for due consideration during the 148th Session of WP.29 (23 - 26 June 2009) as informal document No. WP.29-148-09.
38. On 28 August 2009, this document became ECE/TRANS//WP.29/2009/125 and was submitted to AC.3 for consideration by virtue of paragraph 6.4. of the Agreement.
39. AC.3 agreed to develop this amendment (ECE/TRANS/WP.29/AC.3/27) and requested GRSG to draft the technical content of the proposal as well as the draft technical report.
40. During the 150th Session of the WP.29 (9-12 March 2010) the Chair of the GRSG informed that the proposal would be considered by GRSG at its ninety-eighth session, (3 to 7 May 2010).

41. ECE/TRANS/WP.29/AC.3/27 was discussed during the GRSG meeting on 4 May 2010. It was supported by the experts from Canada, the Democratic People's Republic of China, Korea, India, Japan, the Russian federation and the United-States of America. GRSG invited the expert from the European Commission to prepare a formal proposal with a draft report for consideration by GRSG at its ninety-ninth session.

42. GRSG adopted ECE/TRANS/WP.29/GRSG/2010/31 as well as this report at its ninety-ninth session and agreed to submit it for consideration by WP.29 and AC.3 at their March 2011 session.

III. Content of the proposal

43. The unique change consists in amending paragraph 4.1.2. on identification marks

44. In its proposal, the European Commission paid special attention to minimize the number of changes as far as possible. A meaningful example is given in Annex I to ECE/TRANS/WP.29/AC.3/27 to illustrate the change in the marking of tempered glass panes which would be necessary.

45. To sum up, the purpose of this proposal is to suggest adopting a revised nomenclature in Paragraph 4 of Part B of gtr No. 6, Paragraph 4.1.2 "Identification marks", which would bring them in line with the current system in use for safety glazing materials that comply with UNECE Regulation No. 43.

46. No change to the current markings would therefore be required from the Contracting Parties applying UNECE Regulation No. 43.
