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Agenda item 6

# PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 43
(Safety glazing)

Transmitted by the European Association
of Automotive Suppliers (CLEPA)

Note: Following issue of informal 12, this document supersedes document TRANS/WP29/GRSG/2001/8 which addressed to TRANS/WP29/GRSG/1999/12 Rev.1.

**A. PROPOSAL**

Paragraph 2.18.2, amend to read:

„2.18.2 "Other safety glazing requisite for driver visibility" means all glazing in the rearward field of view of the driver, when the vehicle is equipped with one interior mirror and only one exterior rear view mirror."

Paragraph 5.5.2, amend to read:

„5.5.2. V in the case of a glazing other than a windscreen covered by the provisions of annex 3, paragraph 9.1.4.2."

Annex 2A, The first example should be deleted

The second example becomes the only example and should be amended to read:

„Rigid plastic glazing other than windscreens"

Delete the last lines after „ ...with the requirements of Regulation No. 43."

Annex 2B, Delete: „in its original form" after „Regulation No. 43."

Annex 3 paragraph 9.1.4., Add at the end:

„In the case of glazings other than windscreens, the requirements are specified in Annex 21."

Annex 21

Paragraph 4.2.1.1. amend to read:

..." as defined in paragraph 2.18.1. of ..."

Paragraph 4.2.2., amend to read:

„4.2.2. Other safety glazing requisite for driver visibility"

Paragraph 4.2.2.1., amend to read:

„4.2.2.1 The safety glazing defined in paragraph 2.18.2 of this Regulation must have a light transmittance of at least 70 per cent.“

Paragraph 4.2.2.2., should be deleted.

Paragraph 4.2.2.3., renumber and amend to read:

„4.2.2.2. Plastic safety glazing shall bear an additional symbol A/L or B/L, as defined in paragraphs 5.5.5. and 5.5.7. of this Regulation.
As an alternative, the rear glazing in the folding roof of a convertible vehicle may bear the additional symbol B/M.
The rear glazing in the folding roof of a convertible vehicle may be made of a flexible plastic pane.

Paragraph 4.2.3.1., amend to read:

„4.2.3.1. The safety glazing not covered by the definitions of paragraphs 2.18.1. and 2.18.2. of this Regulation shall bear the additional V specified in paragraph 5.5.2 of this Regulation, if the light transmission is below 70 per cent.“

Paragraph 4.2.3.2., amend to read:

„4.2.3.2. In the case of plastic glazing, the provisions related to abrasion resistance as defined in paragraph 4.2.2.2. *(note: the new paragraph 4.2.2.2. is meant)* of this annex, do not apply for the vehicles and glazing locations listed below.
No abrasion test/symbol is required for plastic glazings intended for::
(a) Ambulances
(b) Hearses
(c) Trailers, including caravans
(d) Sunroofs and glazings located in the roof of a vehicle
(e) All glazings of the upper deck of a double-deck vehicle“

Paragraph 4.2.4., should be deleted.

Paragraph 4.3., should be amended to read:

„4.3. Particular requirements

4.3.1 Any forward facing glazing other than a windscreen must be constituted either by laminated glass or a plastic pane bearing the additional symbol /A, as defined in paragraph 5.5.5. or 5.5.7. of this Regulation.“

## B. JUSTIFICATION

This latest document from the UK and Belgium includes a proposal to introduce a minimum light transmission limit for glazing located to the rear of the driver. Currently, in all countries applying ECE R 43, the practice is to grant approval and allow the use of darker glazing behind the B-pillar with no lower limit on light transmission provided that the rearward field of view requirements specified in ECE R 46 are satisfied using two exterior side mirrors.

In the proposal no evidence, such as accident data, has been cited to justify the need to introduce a minimum light transmission limit of [30%] for these glazings.

The European glass industry has developed a range of darker glasses in response to the demand of motor vehicle manufacturers for glazings with:

- improved solar control performance,
- reduced UV light transmission.

The solar control performance of the glazing is a significant factor in meeting the air-conditioning needs for many motor vehicles, particularly in relation to the power requirements. There is also a growing awareness of the damage caused by UV radiation to human skin and its effect on trim degradation.

The adoption of a [30%] lower limit would restrict the benefits offered by darker solar control glazing. CLEPA has already submitted in TRANS/WP.29/GRSG/2000/24, respectively /2001/8, on the earlier UK/B proposal TRANS/WP.29/GRSG/1999/12, respectively /1999/12/Rev.1, and expressed its concerns when the documents were discussed at the seventy-eighth and seventy-ninth sessions of GRSG.

Re. Paragraph 5.5.2.:

As currently exists in supplement 4

Re. Annex 2A :

If there is no lower limit specified it is not needed.

**Addendum (for information):**
**The relationship between Light Transmission and Solar Control Performance**

The graph below shows how the solar control performance of heat absorbing glass improves as the light transmission is reduced. In the graph:

**Direct Solar Heat Transmission** – is the percentage of the sun's energy, which passes directly to the vehicle interior.

**Total Solar Heat Transmission** – is the sum of the direct transmission and a portion of the heat absorbed by the glass which is re-radiated to the vehicle interior.

**UV Transmission** – is the percentage of solar energy transmitted in the UV range 230-380 mm.