

Distr.  
GENERAL

TRANS/WP.29/GRSG/2001/8/Rev.1  
17 July 2001

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on General Safety Provisions (GRSG)

(Eighty-first session, 8-11 October 2001,  
agenda item 8.)

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

Revision 1

Transmitted by the Expert from the European Association  
of Automotive Suppliers (CLEPA)

Note: The text reproduced below was prepared by the expert from CLEPA in order to modify the proposal of documents TRANS/WP.29/GRSG/1999/12/Rev.1 and Add.1 to which it refers. This document is based on a document distributed without a symbol (informal document No. 19) during the eightieth session (TRANS/WP.29/GRSG/59, para. 42).

---

Note: This document is distributed to the Experts on General Safety Provisions only.

GE.01-

**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.

Second example, amend to read:

"Rigid plastic glazing other than windscreens

.....

The above approval mark ..... with the requirements of Regulation No. 43."

Annex 2B, MODEL A, amend to read:

" .....

.....

The above approval mark ..... pursuant to Regulation No. 43."

Annex 3,

Paragraph 9.1.4., amend to read:

" ... than 70 per cent. In the case of glazings other than windscreens, the requirements are specified in annex 21."

Annex 21,

Paragraph 4.2.1.2., amend to read:

" .... as defined in paragraph 2.18.1. of this Regulation;"

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. (former), renumber as paragraph 4.2.2.2. 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" symbol specified in paragraph 5.5.2. of this Regulation, if the light transmission is below than 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 4.3.1., amend to read:

"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 transmitted by the experts from the United Kingdom 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 Regulation No. 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 Regulation No. 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 per cent] for these glazings.

The European glass industry has developed a range of darker glasses in response to the demand of motor vehicle manufacturers for glazing 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 per cent] lower limit would restrict the benefits offered by darker solar control glazing. CLEPA has already submitted in TRANS/WP.29/GRSG/2000/24, and TRANS/WP.29/GRSG/2001/8, respectively its comments on the earlier UK proposal TRANS/WP.29/GRSG/1999/12 and TRANS/WP.29/GRSG/1999/12/Rev.1 and expressed its concerns when the document was briefly 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 nm.

