

Non-compliance of side-impact barrier State of Play

May 2022

Background

- At the 70th meeting of GRSP, the EU Commission provided Plascore, manufacturer of mobile deformable barriers, the possibility to present informal document [GRSP-70-29](#)
- In this document, Plascore proposes to update the Regulation 95, to allow for a material of the front plate with an elongation at break <12%.
- It also became clear, that the material which Plascore has used for its front plates over the last couple of decades, did not meet the 12% elongation at break requirement as required under UN Regulation 95.02 onwards.
- Conclusion at the 70th session was to further investigate the issue and to investigate if the non-compliance of the barrier may have led to approved vehicle types that actually may not be in compliance with the UN R95 crash performance requirements.

History

- The European Enhanced Vehicle Safety Committee - Working Group 13 (EEVC WG13) at the beginning of this century investigated several issues with the former version of the mobile deformable barrier as used for UN R95 in its original version and the 01 series of amendments.
- A final report with recommendations was published in November 2001 titled: “RECOMMENDATIONS FOR A REVISED SPECIFICATION FOR THE EEVC MOBILE DEFORMABLE BARRIER FACE”
- Mr Richard Lowne on behalf of EEVC WG13 presented an adapted version of this document in the 30th session of GRSP, December 2001; [GRSP-30-02](#)
- One of the issues concerned was the tearing of the front plate.

History (cont.)

It was noted that:

- this is not a new phenomenon. It was also noticed by Euro NCAP on this same model. Although the MDB face used in EuroNCAP did not fully comply with the requirements of ECE R95, it is similar and the tear in the front face is an observation that has been seen in other tests also, including tests by JASIC.
- it is undesirable that two barrier faces built to the same specification perform differently.
- Careful review of the materials used in the front plates had shown that it was likely that this phenomenon was related to the elongation and strength properties of the material.

History (cont.)

- The Draft Specification had been modified to specify the Elongation and Ultimate Tensile Strength of the front plate material.
- In the 31st session of GRSP, held in May 2002, [TRANS/WP.29/GRSP/2002/6](#) was adopted and forwarded to WP.29 for its final consideration and voting
- Published on 10 September 2003 as the 02 series of amendments to UN R95 with date of entry into force: 16 July 2003
- It can be concluded that there was a clear objective to specify the Elongation and Ultimate Tensile Strength requirements of the front plate material; to consider changing it, a good justification is needed.
- There is no indication that barriers from other manufacturers used for Type Approval do not comply with all legislative requirements, but we have not received feedback from all possible barrier manufacturers which may have been used for Type Approval.

Way forward

- The EU Commission suggested Plascore to carry out back-to-back testing with a critical vehicle type (suggestion for possible “victim” vehicle type provided by the EU Commission) in order to be able to judge the possible impact on crash performance.
- Until this investigation is completed and conclusions can be drawn, it is highly recommended for test labs/technical services to make sure that the used barriers for Type Approval Testing, meet all the requirements as stated in the current UN Regulation incl. those for the material specification of the front plate.

Thank you for your attention !