

Transmitted by the expert from India

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 69
(Bonding strength and resistance to cleaning)

Note: In the text reproduced below India proposes modifications for bonding strength requirements (in the case of adhesive materials) and introduction of requirements for resistance to power washing and adhesion strength of retro-reflective markings. The modifications of the current text of the Regulation are marked in **bold** characters.

A. PROPOSAL

Annex 8

Paragraph 4., amend to read:

"4. Bonding strength (in the case of adhesive materials)

4.1. The adhesion of retro-reflective materials shall be determined after 24 hours curing time by utilizing a 90-degree peel on a tensile strength testing machine.

4.2. The adhesion of laminated or coated retro-reflective and fluorescent materials shall be determined.

.... "

Paragraph 7., amend to read:

"7. Resistance to cleaning

7.1. Manual cleaning

7.1.2. A test sample smeared with a mixture of detergent lubricating oil and graphite shall be easily cleaned without damage to the retro-reflective **surface** or fluorescent surface when wiped with a mild aliphatic solvent such as n-heptane, followed by washing with a neutral detergent.

7.2. Power washing

7.2.1. When subjected to a continuous spraying action for 60 seconds on the test component in its normal mounting conditions, a test sample shall show no damage to the retro-reflective surface or delaminate from the substrate or separation from the sample mounting surface under the following set-up parameters:

(a) **Water/wash solution pressure 80 ± 2 bar;**

(b) **Water/wash solution temperature $60^\circ - 5^\circ\text{C}$;**

(c) **Water/wash solution flow rate 6 to 7 l/min. ;**

(d) **The tip of the cleaning wand to be positioned at distance of 600 ± 20 mm away from the retro-reflective surface.;**

(e) **Cleaning wand to be held at no greater angle than 45 degrees from perpendicular to the retro-reflective surface;**

(f) **40 degree nozzle creating wide fan pattern."**

B. JUSTIFICATION

This proposal is in a line with the proposal by CLEPA for amendments to Regulation No. 104 (ECE/TRANS/WP.29/GRE/2006/2).
