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Item B.1.3. of the provisional agenda

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 16
(Safety belts)

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 align the current text of the Regulation with alternative standards ISO 139 and ISO 105-B02. It is based on a document without a symbol (informal document No. GRSP-39-15), distributed during the thirty-ninth session of GRSP (see report ECE/TRANS/WP.29/GRSP/39, para. 22).

The modifications to the current text of the Regulation are marked in **bold** characters or marked as strikethrough.

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

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A. PROPOSAL

Paragraph 6.3.1.2., should be deleted.

Paragraph 7.4.1.1., amend to read:

"7.4.1.1. Temperature-conditioning and Hygrometrics

The strap shall be **conditioned in accordance with ISO 139, using the alternative standard atmosphere**. If the test is not carried out immediately after conditioning, the specimen shall be placed in a hermetically-closed receptacle until the test begins. The breaking load shall be determined within 5 minutes after removal of the strap from the conditioning atmosphere or from the receptacle."

Paragraph 7.4.1.2.1., amend to read:

"7.4.1.2.1. The provisions of Recommendation ISO 105-B02 (~~1978~~) shall apply. The strap shall be exposed to light for the time necessary to produce a contrast equal to Grade 4 on the grey scale on Standard Blue Dye No. 7."

Paragraph 7.4.1.3., amend to read (inserting a new footnote 4):

"7.4.1.3. Cold-conditioning 4/

4/ This test shall not be required on webbing made from material which is inherently resistant to cold conditioning."

Paragraph 7.4.1.4., amend to read (inserting a new footnote 5):

"7.4.1.4. Heat-conditioning 5/

5/ This test shall not be required on webbing made from material which is inherently resistant to cold conditioning."

Paragraph 7.4.1.5., amend to read (inserting a new footnote 6):

"7.4.1.5. Exposure to water 6/

6/ This test shall not be required on webbing made from material which is inherently resistant to cold conditioning."

Paragraph 7.6.2.2., footnote 4/ (~~former~~), renumber as note 7/.

B. JUSTIFICATION

Ad paragraph 6.3.1.2.:

Exact measurement of width under load is not feasible without tolerance of reference force (980 daN). Furthermore and more importantly however woven textile are getting wider under load due to binding structure and therefore this requirement is of no use and should be deleted.

Ad paragraph 7.4.1.1.:

Currently the Regulation requires 24 hours duration for conditioning of the samples. For textiles this is technically not necessary. For textiles conditioning is completed when the sample fabric is in balance with surrounding atmosphere. Balance is reached if subsequent weight measures at 2 hours interval do not show difference in weight of more than 0.25 per cent. ISO 139 takes advantage of this. Due to this conditioning in accordance with ISO 139, using the alternative standard atmosphere, is current practice of most Technical Services. Hence, the amendment proposed will align today's practice with the Regulation.

The table below gives examples for duration of conditioning to reach the balance mentioned above for some webbing types.

Webbing type Sample length ~20 cm	Weight new state [g]	Weight after conditioning at 23 °C / 50 per cent [g]	Duration of conditioning [h]
piece dyed	10.02	10.02	2
spun dyed	10.04	10.04	2
piece dyed	10.03	10.03	1
spun dyed	10.56	10.56	1

Ad paragraph 7.4.1.2.1.:

The revision of ISO 105-B02 referred to in the current text of the Regulation is out of date and not even available for purchase anymore. In order to avoid updating of the regulation with each more recent revision of International Standards it is proposed to refer to the respective latest revision instead.

Ad paragraphs 7.4.1.3., 7.4.1.4. and 7.4.1.5.:

Current webbing material is 100 per cent polyester (PES) material. Conditioning of PES webbing as described in paragraphs 7.4.1.3. – 7.4.1.5. has no influence on tensile strength, see exemplary test results attached. It is moreover proven by long-time conformity of production tests of PES webbing.

Influence of webbing conditioning according to UNECE Regulation No. 16 on webbing strength				
Webbing type	Colour / colouring method	Strength after heat-conditioning acc. to para. 7.4.1.4.	Strength after cold-conditioning acc. to para. 7.4.1.3.	Strength after exposure to water acc. to para. 7.4.1.5.
		per cent of average new state	per cent of average new state	per cent of average new state
94207	Black / spun dyed	98.6 / 99.7 / 99.7	100 / 100 / 100	100 / 100 / 100
83041	Black / spun dyed	98.7 / 99 / 99.4	100 / 100 / 100	99.4 / 99.7 / 100
83054	Black / spun dyed	100 / 99.6 / 100	100 / 100 / 99.3	100 / 100 / 100
78057	Black / spun dyed	100 / 100 / 100	100 / 100 / 100	100 / 100 / 100
97017	Alpacagrey / piece dyed	100 / 100 / 100	100 / 100 / 100	100 / 100 / 100
87004	Kiesel / piece dyed	100 / 100 / 100	100 / 100 / 100	100 / 100 / 100
83071	Black / spun dyed	99 / 99 / 99.3	100 / 100 / 100	100 / 100 / 100
95050	Beige 3 / spun dyed	99.3 / 99.6 / 100	99.6 / 100 / 100	100 / 100 / 100
94207	Black / spun dyed	98.9 / 99.6 / 99.6	100 / 100 / 100	100 / 100 / 100
83041	Black / spun dyed	99.4 / 99.7 / 100	100 / 100 / 100	100 / 100 / 100
