

6 December 2012

Agreement

Concerning the adoption of uniform technical prescriptions for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions*

(Revision 2, including the amendments which entered into force on 16 October 1995)

Addendum 97: Regulation No. 98

Revision 3 – Amendment 2

Supplement 3 to the 01 series of amendments - Date of entry into force: 18 November 2012

Uniform provisions concerning the approval of motor vehicle headlamps equipped with gas-discharge light sources



UNITED NATIONS

* Former title of the Agreement: Agreement Concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, done at Geneva on 20 March 1958.

Paragraph 2.2.5.2.2., amend to read:

"2.2.5.2.2. If provisions are taken to shield the relevant headlamp components from UV radiation, e.g. by glass filters, or;"

Insert a new paragraph 2.2.5.2.3., to read:

"2.2.5.2.3. If low-UV-type LED modules are being applied as specified in Annex 11 of this Regulation."

Paragraph 6.2.4.2., amend to read:

"6.2.4.2. One additional light source according to Regulation No. 37, and/or one or more LED module(s) inside the passing beam headlamp, may be used for the purposes of generating infrared radiation. It/they shall only be activated at the same time as the gas discharge light source. In the event that the gas-discharge light source fails, this additional light source and/or LED module(s) shall be automatically switched off."

Paragraph 6.2.4.4., amend to read:

"6.2.4.4. Measurement conditions with respect to light sources

6.2.4.4.1. In the case of a gas-discharge light source:

The voltage applied to the terminals of the ballast(s) is either 13.2 V +/- 0.1 for 12 V systems or otherwise specified (See Annex 7).

6.2.4.4.2. In the case of a filament light source according to Regulation No. 37:

The lamp shall be measured by means of an uncoloured standard (étalon) filament lamp designed for a rated voltage of 12 V. During the checking, the voltage at the terminals of the filament lamp shall be regulated so as to obtain the reference luminous flux at 13.2 V as indicated at the relevant data sheet of Regulation No. 37.

6.2.4.4.3. In the case of LED module(s):

The lamp shall be measured at 6.3 V, 13.2 V or 28.0V respectively, if not otherwise specified within this Regulation. LED module(s) operated by an electronic light source control gear, shall be measured as specified by the applicant."

Paragraph 6.2.5., the table, delete the row corresponding to points or segments "1".

Annex 4,

Paragraphs 2.2.1. and 2.2.2, amend to read:

"2.2.1. The result expressed in milliradians (mrad) shall be considered as acceptable for a passing beam headlamp when the absolute value $\Delta r_1 = |r_3 - r_{60}|$ recorded on the headlamp is not more than 1.0 mrad ($\Delta r_1 \leq 1.0$ mrad) upward and not more than 2.0 mrad ($\Delta r_1 \leq 2.0$ mrad) downwards.

2.2.2. However, if this value is:

Movement	
Upward	more than 1.0 mrad but not more than 1.5 mrad ($1.0 \text{ mrad} < \Delta r_1 \leq 1.5 \text{ mrad}$)
Downward	more than 2.0 mrad but not more than 3.0 mrad ($2.0 \text{ mrad} < \Delta r_1 \leq 3.0 \text{ mrad}$)

A further sample of a headlamp shall be tested as described in paragraph 2.1. after being subjected three consecutive times to the cycle as described below, in order to stabilize the position of mechanical parts of the headlamp on a base representative of the correct installation on the vehicle:

Operation of the passing beam for one hour, (the voltage shall be adjusted as specified in paragraph 1.1.1.2.),

After this period of one hour, the headlamp type shall be considered as acceptable if the absolute value Δr measured on this sample meets the requirements in paragraph 2.2.1. above."

Annex 11,

Paragraph 4.1., amend to read:

"4.1. UV-radiation

The UV-radiation of a low-UV-type LED module shall be such that: ...

This value shall be calculated using intervals of one nanometre. The UV-radiation shall be weighted according to the values as indicated in the Table UV below:

Table UV

Values according to "IRPA/INIRC Guidelines on limits of exposure to ultraviolet radiation". Wavelengths (in nanometres) chosen are representative; other values should be interpolated.

λ	$S(\lambda)$	λ	$S(\lambda)$	λ	$S(\lambda)$
250	0.430	305	0.060	355	0.000 16
255	0.520	310	0.015	360	0.000 13
260	0.650	315	0.003	365	0.000 11
265	0.810	320	0.001	370	0.000 09
270	1.000	325	0.000 50	375	0.000 077
275	0.960	330	0.000 41	380	0.000 064
280	0.880	335	0.000 34	385	0.000 053
285	0.770	340	0.000 28	390	0.000 044
290	0.640	345	0.000 24	395	0.000 036
295	0.540	350	0.000 20	400	0.000 030
300	0.300				