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51st GRSP Session
Helmets

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Helmet Visor and Sunscreen

In the current Regulation 22, in § 6.15.3.4., we should test the luminous transmittance as specified below:

Visors shall have a luminous transmittance \( \tau_v \geq 80\% \), relative to the standard illuminant D65. A luminous transmittance \( 80\% > \tau_v \geq 50\% \), measured by the method given in § 7.8.3.2.1.1., is also permissible if the visor is marked with the symbol shown in figure 2 and/or with the English words “DAYTIME USE ONLY”. The luminous transmittance shall be measured before the abrasion test.
Helmet Visor and Sunscreen

We find on the market some helmets equipped with integrated sunscreen (5). These sunscreens are not approved according to ECE R22-05, and modify the luminous transmittance. Moreover, helmet visors (3) which not met luminous transmittance criteria of ECE R22-05 could be found, as spare parts, on the market.

1- ECE R22-05 transparent visor $Tv \geq 80\%$
2- ECE R22-05 tinted visor $80\% > Tv \geq 50\%$
3- Visor supplied as spare parts with helmet (but without type approval)
4- ECE R22-05 visor
5- Sunscreen integrated in Helmet, without type approval
French proposal

• We will propose for next meeting a document to amend current ECE R22.05 in order to take into account this innovation.

• This document will be based on the following principles :
  – Authorises in ECE R22-05 tinted visor with lower light transmission
  – Creates the sunscreen definition in ECE R22-05
ECE R22-05

Visor

One layer

- Transparent
  - $T_v \geq 80\%$
  - Optical and mechanical requirements

OR

Two layers

- Sunscreen
  - Optical and mechanical requirements based on EN 1938
  - Goggles for motorcycle and moped users

OR

- Tinted
  - $80\% > T_v \geq 50\%$ to $18\%$
  - Optical and mechanical requirements
**EN 1938**

Goggles for motorcycle and moped users

### Table 2 — Facteur de transmission admissible des oculaires

<table>
<thead>
<tr>
<th>Catégorie du filtre</th>
<th>Domaine spectral ultraviolet</th>
<th>Domaine spectral visible</th>
<th>Absorption accrue des infrarouge a)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Valeur maximale du facteur spectral de transmission $\tau_F (\lambda)$</td>
<td>Valeur maximale du facteur de transmission des UVA solaires $\tau_{SUVA} (\lambda)$</td>
<td>Domaine des valeurs du facteur de transmission dans le visible $\tau_V$</td>
</tr>
<tr>
<td></td>
<td>280 nm à 315 nm</td>
<td>315 nm à 350 nm</td>
<td>315 nm à 380 nm</td>
</tr>
<tr>
<td>0</td>
<td>$0,1 \cdot \tau_V$</td>
<td>$\tau_V$</td>
<td>$\tau_V$</td>
</tr>
<tr>
<td>1</td>
<td>$0,1 \cdot \tau_V$</td>
<td>$\tau_V$</td>
<td>$\tau_V$</td>
</tr>
<tr>
<td>2</td>
<td>$0,1 \cdot \tau_V$</td>
<td>$\tau_V$</td>
<td>$\tau_V$</td>
</tr>
</tbody>
</table>

*a) Ne s’applique qu’aux lunettes-masques recommandées par le fabricant comme protection contre les rayonnements infrarouges.

Dans le cas d’oculaires ayant un facteur de transmission dans le visible inférieur à 75 %, le fabricant doit inclure dans les informations à fournir l’avertissement suivant : « Non adapté pour la conduite de nuit ou au crépuscule.»