Resolution on Road surface labelling

Draft proposal: ECE/TRANS/WP.29/GRB/2018/8 and 9

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UNECE Working Party on Noise and Tyres (GRBP)
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Road surface label has 4 indicators

• Noise reduction
• Wet skid resistance
• Rolling resistance
• Lifespan
Road surface label

[Identification of road surface]

**Noise reduction (NR)** in dB(A)
- NR ≥ 11.0: A
- 8.0 ≤ NR < 11.0: B
- 5.0 ≤ NR < 8.0: C
- 2.0 ≤ NR < 5.0: D
- -1.0 ≤ NR < 2.0: E
- -4.0 ≤ NR < -1.0: F
- NR < -4.0: G

**Skid resistance (SR)** in friction coefficient
- SR ≥ 0.83: A
- 0.68 ≤ SR < 0.83: B
- 0.59 ≤ SR < 0.68: C
- 0.50 ≤ SR < 0.59: D
- 0.42 ≤ SR < 0.50: E
- 0.33 ≤ SR < 0.42: F
- SR < 0.33: G

**Rolling resistance reduction (RRR)** in kg/t
- RRR ≥ 2.0: A
- 1.5 ≤ RRR < 2.0: B
- 1.0 ≤ RRR < 1.5: C
- 0.5 ≤ RRR < 1.0: D
- 0.0 ≤ RRR < 0.5: E
- -1.0 ≤ RRR < 0.0: F
- RRR < -1.0: G

**Lifespan (LS)** in years
- LS ≥ 18: A
- 15 ≤ LS < 18: B
- 12 ≤ LS < 15: C
- 10 ≤ LS < 12: D
- 8 ≤ LS < 10: E
- 4 ≤ LS < 8: F
- LS < 4: G
Video news broadcast

• First road surface with a quality label
• Advantages label
  • Transparant
  • Innovation
  • Acknowledges that a road surface is a product that can be developed, designed, built, maintained and removed
  • Facilitates the collaboration between tyre manufacturers and road builders and other relevant industrial partners (e.g. Automotive)
  • Facilitates and makes the optimisation of tyre-road interaction possible
  • Recognition for society and politicians
  • Facilitates the interaction and communication with road users and residents
Tender province Gelderland

- Judgement of tender prices determined by the quality of the label
- 40% base and 60% label

<table>
<thead>
<tr>
<th>Label</th>
<th>Minimum</th>
<th>1 sublabel higher</th>
<th>2 sublabels higher</th>
<th>3 sublabels higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noise reduction</td>
<td>D</td>
<td>C:20%</td>
<td>C:20%</td>
<td>C:20%</td>
</tr>
<tr>
<td>Wet skid resistance</td>
<td>E</td>
<td>D:10%</td>
<td>C:15%</td>
<td>C:15%</td>
</tr>
<tr>
<td>Rolling resistance</td>
<td>E</td>
<td>D:10%</td>
<td>C:15%</td>
<td>B:20%</td>
</tr>
<tr>
<td>Lifespan</td>
<td>E</td>
<td>D:20%</td>
<td>C:35%</td>
<td>B:40%</td>
</tr>
<tr>
<td>Max total</td>
<td></td>
<td>60%</td>
<td>85%</td>
<td>95%</td>
</tr>
<tr>
<td>Criterion</td>
<td>Province Gelderland</td>
<td>Contractor #1: 10 M euro</td>
<td>Quality discount</td>
<td>Contractor #2: 6 M euro</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------</td>
<td>--------------------------</td>
<td>------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Noise</td>
<td>D</td>
<td>C</td>
<td>6M*20%=1.2</td>
<td>D</td>
</tr>
<tr>
<td>Wet skid resistance</td>
<td>E</td>
<td>D</td>
<td>6M*10%=0.6</td>
<td>D</td>
</tr>
<tr>
<td>Rolling resistance</td>
<td>E</td>
<td>B</td>
<td>6M*20%=1.2</td>
<td>D</td>
</tr>
<tr>
<td>Lifespan</td>
<td>E</td>
<td>B</td>
<td>6M*40%=2.4</td>
<td>E</td>
</tr>
<tr>
<td>Fictional tender price</td>
<td></td>
<td></td>
<td>10M-5.4=4.6M</td>
<td></td>
</tr>
</tbody>
</table>
Conditions to the tender

• Comparable and accepted measurement methods per indicator
• Prove characteristics every 2 years
• Repair and maintenance allowed
• Fine for not meeting the offered sublabel (twice the given fictional discount)
Resolution on Road surface labelling

• GRB67 asked for a Working document, that may become a resolution
  • Two documents:
    1. Proposal for a draft Resolution
    2. Background information
• Resolution is a Guideline and is thus a non-mandatory instrument
• Instructions/manual how to use this road surface label
Structure Resolution (I)

• Preamble
  • WP.29 on this Resolution on road surface labelling:
    • Harmonisation of technical requirements ensuring high quality
    • Facilitation of assessment of road pavement surface performance
    • Complements the existing tyre label
    • Does not prescribe minimum requirements
    • No regulatory status
    • Recommends the use establishing a road surface label
Structure Resolution (II)

• Introduction
  • Resolution establishes a framework
  • Aim is to increase safety and environmental and economic efficiency of road transport

• Scope

• Definitions
  • Label, 4 indicators, classes

• Requirements
  • Annex I gives the classes for the 4 indicators
  • Annex II-V give the determination/measurement methods for the 4 indicators
  • Annex VI gives the format of the label
Background information for the draft Resolution on road surface labelling: ECE/TRANS/WP.29/GRB/2018/8 and 9

• Provides extra information
• Benefits
• Scope
• Expands on the labelling concept and gives examples
• Some references
Annex III of the draft resolution

• Replacement current Annex III
  • Annex III in ECE/TRANS/WP.29/GRB/2018/8 is a reference to an article in German language
  • Annex III should be self-explaining and in English/French/Russian
• Measurement methodology Annex III
  • Now ‘Braking friction coefficient’ instead of ‘Side ways friction coefficient’
• Replacement of Annex III consequently leads to adjustments to both the draft Resolution on Road surface labelling and its Background information
• Informal document GRB-68-08 gives the amendments and adjustments to both Working Documents
Technical/detailed questions?

• If we cannot answer them at this GRBP: fbijleveld@ooms.nl

• When can the draft Resolution go the WP.29 for adoption?

•Thank you for your attention!