Agenda of ELANORE Final Seminar

Kłanino, Poland, 16-17 January 2024

DAY 1:

10:00 – 10:40 Welcome session

- Welcome and general information
- The ELANORE project
- What is wrong with the present tire labels regarding rolling resistance (RR)?
- What is wrong with the present tire labels regarding NOISE?

10:40 – 12:20 Rolling resistance session

Presentation 1 Relations between different methods of rolling resistance measurements.

- Description of most common methods of Rolling Resistance Measurements
- Comparison of Rolling Resistance results obtained during road measurements and measurements performed on roadwheel facility with drum covered by various replica road surfaces
- Comparison of Rolling Resistance results obtained during road measurements and measurements performed on Flat Bed Facilit

Presentation 2 Relation between ISO 28580 and road measurements of rolling resistance.

- Overview of ISO 28580 standard
- Comparison of Rolling Resistance results obtained during road measurements and measurements performed according to ISO 28580
- Conclusions

Presentation 3 Influence of temperature on Rolling Resistance measurements.

- Statistical view on air temperatures in Europe, Asia and America
- Influence of tire warming up on Rolling Resistance
- Influence of air temperature on Rolling Resistance
- Recommendations concerning ambient temperature during Rolling Resistance measurements

Presentation 4 Replica road surfaces for drum measurements.

- Technology of replica road pavement production
- Overview of replicas used in Gdańsk University of Technology

Presentation 5 **Proposal of a new tire labelling procedure for Rolling Resistance.**

- Proposal of new conditions during Rolling Resistance measurements
- How new measuring conditions may change tire ranking

12:30 – 13:30 Lunch

13:30 – 15:50 Noise session

Presentation 1 **Tire labelling procedure and other noise measurement methods used during tests performed within the ELANORE project.**

- General information about noise measuring procedure defined in Reg.117 (presenting CPB method and following calculations of noise label values)
- Vehicle, tires and pavements used during measurements (CPB, CPX and DRUM)
- Short description of other measurement methods (CPX, DRUM and SEL)
- Summary of tests performed within the ELANORE project (CPB, CPX, DRUM and SEL including presentation of used test conditions: R117 and LT)

Presentation 2 **ISO test track influence on the EU tire label noise value and other test related issues. Proposal of a calibration procedure.**

- Representativeness of the standard reference road surface proscribed in the ISO 10844:2014
- Differences in tire/road noise when tested on conventional pavements and ISO reference surface (CPB results only; 5 tire sets, 2 load conditions; SPL values, tire ranking for 2 speeds: 50 and 80 km/h)
- Uncertainty of measuring procedure
- Differences between ISO test tracks and proposal of a calibration procedure for the influence of ISO test track
- Influence of temperature corrections on tire/road noise
- The issue of testing winter and all-season tires in 20 ^{o}C (proposal to use +5 ^{o}C and +10 ^{o}C correspondingly for winter and all-season tires)

Presentation 3 **The correlation of different tire/road noise measuring methods and comparison of tests performed on ISO reference surface and various conventional pavements. Proposal of an improved tire labelling procedure for noise.**

- Differences in tire/road noise when tested on conventional pavements and ISO reference surface (CPX, and also DRUM results; 11 tires, 2 load conditions; SPL values, tire ranking for 2 speeds: 50 and 80 km/h)
- Correlation between road CPX, road CPB and laboratory (DRUM) noise measurements
- Differences between GUT's and SINTEF's CPX trailer results
- Discussion of the most crucial issues when testing according to Reg.117 procedure
- Proposal of an improved tire labelling procedure for noise (including the issue of testing winter and all-season tires in 20 ^{o}C: proposal to use +5 and +10 ^{o}C)

Presentation 4 **The impact of tire labelling method on environmental noise in road vicinity.**

- Presentation of SEL measurement procedure
- Correlation between SEL and CPB, CPX and DRUM noise measurements
- Input data for environmental noise calculation
- Results of noise calculations using different method and traffic cases
- Environmental benefits related to correct labelling procedures

15:50 – 16:00 **Coffee break**

16:00 – 16:45 **Discussion panel**

17:00 – 18:00 **Sightseeing of the 2nd World War Museum in Kłanino Palace**

19:00 – 22:00 **Gala dinner**

DAY 2:

9:30 – 10:15 **Transfer to Dąbrówka GRYF Museum**

10:15 – 12:00 **Sightseeing**

12:00 – 13:00 **Transfer to Gdańsk**

13:00 – 14:15 **Visiting laboratories of TUG**

14:15 – **Closing of the seminar**