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GRBP/GRPE Task Force on Tyre Abrasion (TFTA)

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Recommendation to use of urban sections at on-road wear tests

Dear TFTA Secretariat,

at the request of the ETRTO and representing FIA and mobility clubs affiliated in the Tyre Abrasion taskforce, we are pleased to send you our recommendation regarding the consideration of urban sections when selecting a suitable route for on-road wear measurements.

Measurements of tyre wear in real-life operation require driving conditions that are as constant and reproducible as possible. For this reason, the wear measurements in the ADAC tyre wear test are carried out with the highest possible proportion of motorway and especially country road driving.

On the motorway, a very constant and repeatable driving profile can be realised, with low risk of changing traffic conditions over the test period and low accident/failure risk. Convoy driving can be realised in the best possible way on the motorway. Disadvantages arise when driving on motorways mainly due to the largely constant driving speeds and the low proportion of lateral accelerations due to the largely straight routes. Thus, only little tyre wear is generated, which would mean a long driving distance to achieve a meaningful result.

Out of town, on country roads, a largely constant driving profile can also be realised, as the danger of traffic jams is low, the traffic volume can be calculated quite well at peak times and the risk of accidents is quite low, as on the motorway. Nevertheless, sufficient lateral acceleration and more frequent acceleration and braking phases can be achieved on suitable rural roads due to changing speed limits. Driving in a convoy is also quite possible on rural roads thanks to fewer junctions, intersections or traffic lights.

In urban traffic, on the other hand, it is difficult to implement reproducible driving conditions, because the driver's influence on the result can be higher than out of town or on the motorway. Slight deviations in the schedule can directly lead to changed traffic conditions compared to the other test days, e.g. when driving in urban areas during rush hour. The many intersections, junctions and traffic lights make it significantly more difficult to realise convoy driving. Strong acceleration is sometimes necessary to keep up with the vehicle in front, e.g. if you have to merge quickly or drive through the traffic lights. The already significantly higher accident risk in urban areas (over 70% of accidents with personal injury occur in urban areas) can be further increased by the often necessary, risky driving style. Irrespective of the risk of accidents for oneself and other road users, the risk of failure of a convoy vehicle increases. The aforementioned risks are in contrast to the advantages of inner-city driving of producing a high but at the same time realistic abrasion.

From the ADAC's point of view, a combination of motorway and extra-urban driving offers the best possible compromise of reproducibility, efficiency and risk reduction when carrying out tyre wear measurements.

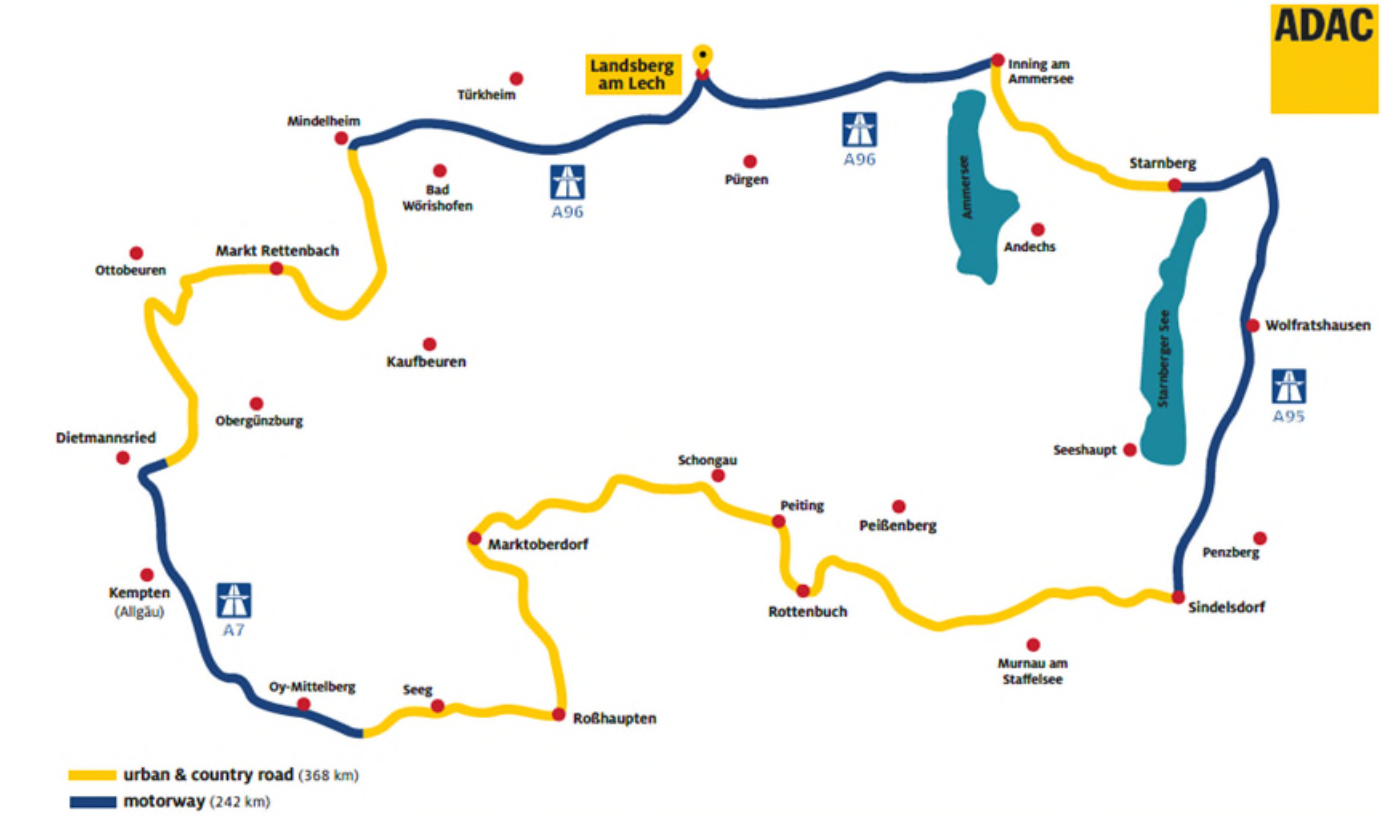
The ADAC driving profile was created accordingly and contains about 40% motorway and 60% country road and inner-city portions. However, the inner-city portions were limited to only necessary town crossings and only driving on main roads (no side roads, etc.). I have attached a schematic picture of our current test route in Appendix 1.

I hope that the experiences passed on by the ADAC, fully supported by FIA and mobility clubs affiliated, will be helpful for the further development of the test methodology and will be happy to answer any further questions.

With kind regards

Dino Silvestro
ADAC e.V.

Appendix 1: schematic picture of ADAC test route



Convoi Weartest

Overview: daily route, clock- and unclockwise

kilometre:	**610 km**
urban & country road:	**368 km (60%)**
motorway:	**242 km (40%)**