

Tyre testing for homologation purposes

IDIADA has a **vast experience testing and approving** tyres in the field of rolling sound emissions, adhesion on wet surfaces and rolling resistance according to the new [Regulation \(EU\) 2020/740](#) which entered into force on 1st May 2021, and replacing the previous **European tyre labelling Regulation (EC) No 1222/2009**, which entered into force in 2012.

Furthermore, IDIADA provides testing solutions according to all United Nations tyre regulations, such as [Regulation No. 30, 54, 75, 117, 106, 108 and 109](#).

IDIADA's tyre homologation team is actively **participating in the United Nations** tyre-related forums ([GRBP Working Party on Noise and Tyres](#)) and its Informal Working Groups structures, which allows us to keep up to date with all regulatory developments and to be technically prepared for the future.



IDIADA is designated by different **Type Approval Authorities** (Spain E9, The Netherlands E4, Serbia E10 and Malaysia E52) to provide ECE R117.02 certification.

The regulatory know-how, together with the accreditations and designations achieved by IDIADA, gives us the opportunity to test not only according to the **EU and UN regulations**, including the new European labelling scheme **R(EU)2020/740**, but also to [Gulf Standard GSO 42/2015](#), [Saudi Standards SASO 2857/2016](#), [Brazilian Inmetro Portaria 544/2012 and 379/2021](#), all accredited under ISO 17025 by ENAC, the Spanish member of ILAC ([accreditation number 35/LE159](#)).

Tyre testing in the field of rolling sound emissions for homologation purposes:

IDIADA proving ground complex includes **five ISO 10844:2014 test tracks**, fully approved to [perform Noise tests](#) for C1, C2 and C3 tyres.

The tyre homologation department, thanks to its specialized technical staff, performs **pass-by noise tests** for a **every single tyre size**. The vehicles used for pass-by noise tests are specifically chosen and not shared with other kinds of tests in order to provide the most repeatable and comparable results.

IDIADA uses the highest quality equipment, such as **state-of-the-art sound level meters and high precision GPS speed recording systems with optical triggers**, capable of obtaining the most accurate results.

At IDIADA, we are aware the importance of timing in the tyre business. Thanks to our capabilities and our team's flexibility, we perform several noise tests per day, significantly **reducing lead times**.

Tyre testing in the field of wet grip for homologation purposes:

IDIADA mainly focuses on **vehicle method** testing to avoid any simulation and offer **the most realistic results** compared to real driving conditions. For this reason, we own a **large fleet of vehicles**, from small urban cars to big tractor trucks. All these vehicles work together with a large collection of wheels to **test any tyre size available on the market**.

Our **in-house designed proving grounds**, together with [favourable climatic conditions](#) at our headquarters in Spain allow us to test **all-year-round**.

IDIADA is currently taking part in the **Informal Working Group on Wet Grip Performance for Tyres in a Worn State (IWG WGWT)**. This involvement enables IDIADA to offer wet grip tests not only for new tyres, but also for **worn tyres**.

Tyre testing in the field of rolling resistance for homologation purposes:

IDIADA is one of the **European Reference Laboratories** inside the EGLA ([the Expert Group of Laboratory Alignment](#)) and has full capability to provide **alignment services** to other laboratories, allowing them to perform their own labelling tests.

IDIADA tyre laboratory has three drum testing machines, enabling us to perform rolling resistance tests for **light and heavy vehicle tyres**. With this equipment, we can cover all the range of C1 and C2 tyres and testing C3 tyres with load indexes up to 180. Our laboratory has a **sophisticated air conditioning system**, which allows rolling resistance results to be obtained with a **minimum temperature correction**.

Following the **ISO 28580:2018** requirements, IDIADA has a complete range of wheels to perform the tests, offering turnkey projects to clients where only the tyre to be tested is needed.

Tyre testing for United States of America:

IDIADA offers the possibility to test tyres according to US **Standards such as § 571.109, § 571.119 and § 571.139**. Our load/speed machines can test tyres according to all testing procedures and the air conditioning system is capable of maintaining the **high temperatures** required.

Additionally, IDIADA owns specific **bead unseating and tyre strength (plunger)** machines to test all tyre classes.

Tyre testing according to load/speed regulations:

IDIADA performs all indoor tests required for **tyre homologation**. This also includes the tests according to the **load/speed regulations**, such as:

- **Regulation No. 30** for tyres intended for passenger cars
- **Regulation No. 54** for tyres intended for heavy vehicle tyres
- **Regulation No. 75** for tyres whose use is intended for L-category vehicles
- **Regulation No. 106** for tyres intended for agricultural machines



Our test machine intended for **light vehicles tyres** allows us to reach **speeds of 350 km/h** and loads up to **2000 kg**. With such characteristics, we are able to test all tyres inside this category.

On the other hand, the **heavy vehicle tyre** test drum is able to reach a load of 7500 kg and a maximum **speed of 160 km/h**, value far above than the maximum speed required by the regulation.

With reference to **Regulation No. 75**, in addition to having the necessary equipment to carry out the **load/speed test** and the **high-speed test** for wheels with higher performance, we have the latest photographic technology to perform the **dynamic growth test**, which allows us to obtain a 2D tyre growth image, and with that, the most accurate enveloping curve.