



EXCLUSIVE TO:



E MARKING AND BULB QUALITY

INTRODUCTION

It's a fact the simple automotive bulb is a safety critical component of any vehicle on the road today. Often overlooked, it's a key part of providing the right light ahead on a dark road or warning other road users a driver is braking or about to change direction. As it is vital to operate safely, the bulbs must be manufactured to international standards.

ECE REGULATION 37

The standard ECE Regulation 37 more commonly shortened to the "E" mark. ECE Regulation 37 details exact specifications that cover light output, filament geometry, voltage, wattage, size and shape of the bulb.



The light output specification ensures the correct level of illumination from the light assembly. Too bright and you could dazzle other road users. Too dim and you may simply not be able to see the way ahead.

Filament geometry specification ensures the correct alignment of the light source, (the filament, in the light assembly) ensuring the light source is correctly focused for optimum light output. Voltage and wattage specification ensures the bulb can safely be fitted to a vehicle's electrical system without overloading the switching or wiring harnesses. Size and shape specification ensures the bulb fits correctly into a light unit or assembly.

A WORLDWIDE STANDARD

Each country that has signed up to ECE Regulation 37 is authorised via a government agency to issue E approvals with a unique number. In the case of the UK, the issuing agency is the VCA. The numbers are issued in sequence as countries join and issue approvals to the regulation. For instance, Germany uses E1, France E2, UK E11, Korea E51.

Approvals can only be granted once the product and the manufacturing process has been tested and verified by an independent test laboratory. These test laboratories are located across the world and test to the same ECE Regulation 37 standards.

The testing or manufacturing may not be in the country that issues the E approval. Therefore, it is possible to have products made in Taiwan, tested in China and issued with a German approval number.

The approval number does not indicate the country of origin, nor does it carry any indication of perceived quality, as all the approvals are granted to the same specification and testing regimes.

LEGAL REQUIREMENTS

It is illegal to fit light assemblies (that carry their own performance approval numbers) with bulbs that are not E approved (1989 Road Vehicle Lighting Regulations).

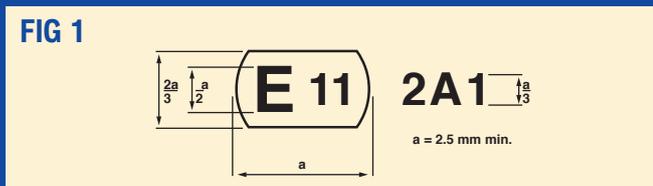
In addition, it is also illegal to stock or offer these bulbs for sale in the UK (Filament Bulbs for Vehicles (Safety) Regulation 1982). The standard for Gas Discharge light sources is ECE Reg. 98.



HOW CAN I TELL IF A BULB MEETS ECE REGULATION 37?

The bulb should be marked with ALL the following information:

1. The trade name or mark of the manufacturer.
2. The rated voltage - typically 12V for passenger cars and 24V for commercial vehicles.
3. The international designation for the bulb. This is also known as the ECE type (e.g. W21W or H7)
4. The rated wattage of the bulb including any dual filaments (e.g. 21W or 21/5W). This is not required if the international designation identifies the wattage.
5. The approval mark in accordance with the specification for its size and shape (see Fig 1).



The approval mark consists of the following:

1. The designated E number (e.g. E11) in a rectangular box followed by a unique three digit code. This can only be applied to one bulb type for each manufacturer. This identifies the manufacturer.
2. In the case of a halogen bulb, which has to meet the requirements of the UV light output specification, it may be marked with a U.

The approval mark affixed to a filament bulb indicates the bulb has been approved in the United Kingdom (E11) under the approval code A1. The first character of the approval code indicates the approval was granted in accordance with the requirements of ECE Regulation No. 37 as amended by the 02 and 03 */ series of amendments.

Unfortunately a correctly marked E mark does not always guarantee quality as there are direct copies and forgeries circulating in the marketplace.

You can only be certain of a product's quality by selecting a supplier that has the abilities to independently check and verify the quality of the bulbs offered for sale.

NON-COMPLIANT MARKING

The following examples show non-compliant E marked bulbs which are illegal and should not be sold or offered for sale.

1. NO INTERNATIONAL DESIGNATION



2. NO TRADEMARK



3. INCORRECT APPROVAL SYMBOL



4. DUPLICATE E MARK ON DIFFERENT CAPS. CLEARLY ONE IS A COPY?

This example illustrates very clearly there are manufacturers that are prepared to apply E marks to their products that are clearly illegal and to which they may not have the rights.



5. NO U MARK

The bulb may not be suitable for any headlamps with plastic lenses or component parts. Bulbs must not exceed damaging UV light limits set to protect plastic headlamps and any plastic components in the light unit. Products marked with the U are UV cut and meet the requirements of ECE Regulation 37. Consumers should look for the letter U to check all bulbs are suitable for their headlamps.



DID YOU KNOW?



All NAPA bulbs are lead-free.



NAPA headlamp bulbs are UV cut.



All NAPA bulbs are marked as being suitable for transport use only and not for use in the home.



Need NAPA Know How?

For further information and advice, speak to one of our technical experts on **03333 136597** or visit www.NAPAautoparts.eu for technical guides and further information