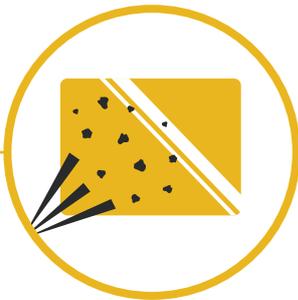


What is the BS AU 145e standard?

The UK has some of the busiest roads and most variable weather in Europe. As a result, we already have some of the strictest rules on number plate construction. The new British Standard rules go even further to ensure public safety and security through ANPR camera readings and harder, more resilient plates.

This document explains more about what makes British Standard plates fit for purpose.

What's new with the E standard?



Increased resistance
to abrasion



Solid black
digits only



NIR contrast for
ANPR cameras

So what do plates have to be under the E standard?

Durable and able to resist:

- **Impact.** Stone chips and minor parking collisions are unfortunately part of driving. The impact test ensures the plate's longevity.
- **Bending.** The components that make up a plate can separate from each other when the plate is bent. This is sometimes called plate delamination. The bend test prevents delamination on BNMA member supplied plates.
- **Thermal change.** The UK's changeable temperature necessitates this test. The plate's shape and size must remain the same when subjected to heat and cold.
- **Abrasion (NEW).** Plates stay clear and easy-to-read if they pass the abrasion test. This protects against repeated exposure to dirt, road grime and jet-washing.
- **Being removed from a vehicle.** Provided adhesive pads are placed correctly along the plate, it will take over 160 hours of consistent pressure to detach a plate that passes the E standard.
- **Weathering.** The weathering test under BS AU 145d remains the same under BS AU 145e. It's a key and extensive test and replicates 2,275 hours of UV exposure; 2½ times more than some other European number plate test schedules.

Reflective, with the correct:

- **Colourimetry.** Plates must be made of components that show the correct white for front plates, yellow for rear plates and black for printed digits.
- **Retroreflection.** To keep them distinct on a plate, the black digits and yellow or white background have very different retroreflectivity rules. The black digits cannot exceed 0.5 retroreflective units (cd/lx) whereas the white or yellow background can't exceed 150 retroreflective units.
- **Near Infrared contrast (NEW).** ANPR cameras read plates by looking at the contrast between the digit and the plate background. This contrast is read in the near infrared (NIR) spectrum, similar to infrared or ultra-violet. The new rules make sure all plates can be read in NIR. The NIR test is repeated at various points during the accreditation process.

Designed and printed with the correct:

- **Solid black digits (NEW).** Two-tone/3D fonts of any kind are no longer allowed. This is for ANPR cameras.
- **Supplying outlet's details.** The centre-bottom of the plate must include the supplier's business name and postcode.
- **Component supplier mark.** All plates show the manufacturer name and BS AU 145e in the bottom right corner of the plate.
- **Space around the registration.** This is essential for ANPR readability.
- **Optional border.**



Summary

- BNMA members supply fully compliant BS AU 145d and 'e' plates. New legislation becomes compulsory in March 2019.
- BNMA members test all their plates at independent accredited test houses, starting 1 year before the 'e' standard comes into force.
- Plates must now be even more durable, showing resistance to abrasion as well as bend, impact and temperature changes.
- Digits can now only be solid black.
 - ANPR drives a lot of the changes.
- The correct near-infrared contrast between digits and background is essential for ANPR cameras.
- Customers buying from BNMA members can be assured of meeting the standard.