

Regulation ECE104



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Since July 2011, Regulation ECE104 has required that all newly registered heavy goods vehicles over 7.5 tonnes and trailers over 3.5 tonnes have retro-reflective conspicuity markings on them.

The Markings must clearly outline the rear and sides of the vehicle to increase its visibility.

Regulation ECE104 also specifies the standard for the retro-reflective materials used, and where it must be positioned on the vehicle or trailer.

Why has it being introduced?

Quite simply to reduce accidents and save lives.

Research has demonstrated that by outlining the contours of vehicles with high visibility safety markings, it does significantly decrease the number of accidents involving long and heavy vehicles; the visibility of a vehicle is increased leading to a better safety record for vehicle operators and other road users.

A reduced accident rate means a reduced repair bill which equally saves costs. It also improves a corporate image by having a better reputation and safety record.

Is it Mandatory?

Yes, regulation ECE104 is now mandatory for all newly registered vehicles over 7.5 tonnes and new 3.5 tonne trailers. They will need to be marked up with compliant ECE104 tape.

Many proactive vehicle operators are applying high visibility markings to their fleets now as an improved safety measure.

What vehicles are affected?

Vehicles exceeding 2100mm in width and 6000mm in length in the following categories:

- N2** Vehicles designed and constructed for the carriage of goods and having a maximum weight exceeding 7.5 tonnes but not exceeding 12 tonnes
- N3** Vehicles designed and constructed for the carriage of goods and having a maximum weight exceeding 12 tonnes
- O3** Trailers with a maximum mass exceeding 3.5 tonnes but not exceeding 10 tonnes
- O4** Trailers with a maximum mass exceeding 10 tonnes

Certain types of vehicles designed and constructed to carry passengers may be affected. To find out more information please contact our head office.

What markings are allowed?

Safety Markings

Approved reflective materials must be used to identify the width and at least 80% of the total length of the vehicle.

The correct markings are as follows:

Position on the Vehicle	Colour
Front	White (Recommendation)
Sides	Yellow White
Rear	Red Yellow

UK preference is to have red on the rear and yellow on the sides of vehicles.

Markings should be made up of a continuous strip, a minimum of 50mm up to a maximum of 60mm wide, or several strip elements. These should identify as closely as possible the overall shape of the rear and/or sides of the vehicle.



A combination of marked and unmarked vehicles/trailers is discouraged.

Corporate and Advertising Graphics

If the retro-reflective material is intended to promote the company i.e. corporate livery or logo, then reflective graphics using class ref. 1 material (Engineering Grade) can only be used. The colours should be as follows;

Position on the Vehicle	Colour
Front	Any colour EXCEPT red
Sides	Any colour
Rear	Red

Reflective sheeting products of class ref. 2 or Diamond Grade material should not be used for any corporate and advertising graphics on vehicles.



Which material is allowed?

Without the E-Mark symbol, the product is not compliant with the regulation. The film must be a homologated retro-reflective category C* material with the reflective area being no more than 60mm wide. The manufacturer's name must also be printed.



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3M™ Scotchlite 983 and 997 Series are category C E-Marked films suitable for markings under ECE104. They are available ex-stock in full and part rolls. 983 Series has an eight year warranty and 997 Series has a three year warranty.

3M™ Scotchlite 983 Series is designed for applications on to rigid and stainless steel substrates. 997 Series is for curtain sides and available in white, yellow and red in segmented or continuous strips in 52mm x 50m rolls.

3M™ 3M Metalised Conspicuity Markings Series 943 is a retroreflective marking tape that meets all the requirements of regulation ECE104. Series 943 offers high brightness, wide reflective angularity, is easy to apply and remove, is resistant to peeling and other damage, and has a five year warranty.

*Category C (contour) materials are the brightest materials permitted for vehicle markings. With a brightness of 300-450 cd/lx.m², these films may only be used for contour (safety/conspicuity) markings.

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