

Specification for

Permanent preformed road markings

ICS 93.080.30

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Road Engineering Standards Policy Committee (RDB/-) to Technical Committee RDB/41, upon which the following bodies were represented:

- British Glass Manufacturers' Confederation
- County Surveyors' Society
- Department of Transport
- Institution of Civil Engineers
- Institution of Highways and Transportation
- Paintmakers' Association of Great Britain Ltd.
- Retro-Reflective Equipment Manufacturers' Association
- Road Markings Manufacturers' and Contractors' Association
- Co-opted members

This British Standard, having been prepared under the direction of the Road Engineering Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 30 April 1991

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Amendments issued since publication

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The following BSI references relate to the work on this standard:
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Foreword

This British Standard and Amendment No. 1 have been prepared under the direction of the Road Engineering Standards Policy Committee to cover the performance of preformed road markings when used on public highways or other pavement surfaces in other than temporary situations.

The changes made by Amendment No. 1 do not reflect a full review of the standard but were those felt necessary to maintain its currency for the foreseeable future pending its withdrawal and supersession by European standards currently in preparation. On the publication of BS EN 1790 this standard is declared obsolescent.

It specifies the performance requirements and testing procedures required to obtain type approval of preformed road markings when applied to the road surface.

The procedures for the control of the testing at the trial site are carried out under the direction of the supervising authority nominated by the Department of Transport.

Applicants who wish their materials to be included in the road performance trials are referred to appendix A, where details of the procedures adopted by the supervising authority are given.

The only supervising authority nominated by the Department of Transport at the time of publication of this standard is BSI Quality Assurance Division of BSI, to which all enquiries and applications to participate in the road assessment trials should be referred.

It has been assumed in the drafting of this British Standard that the execution of its provisions is entrusted to appropriately experienced people.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Specification

1 Scope

This British Standard specifies the performance requirements for type approval of white preformed road markings for use on public highways as centre lines, edge-lines, pedestrian crossing stripes or any other road marking prescribed in Schedule 2 of The Traffic Signs Regulations and General Directions 1981¹⁾.

Except for the requirement of 'luminance factor', provision is made for the results obtained on the white material to be applicable to other coloured materials where the composition of any other coloured material is the same as for the white material, apart from its pigment content.

Provision is also made for the performance of these preformed materials to be tested with or without solid glass beads or other retroreflecting agents.

Appendix A lists the preconditions for the road performance trials.

NOTE. The titles of the publications referred to in this standard are listed on the inside back cover.

2 Definitions

2.1 preformed road marking

A factory-produced road marking material, not made from thermoplastic road marking material as defined in BS 3262, capable of being stuck to pavement surfaces with or without a priming coat.

2.2 luminance factor

The ratio of the luminance of a non-luminous body, under specified condition of illumination and observation, to the luminance of a perfect diffuser receiving the same illumination.

2.3 retroreflectivity

The ability of a material or device to reflect light in the general direction of the light source.

2.4 skidding resistance

The frictional forces between tyre and road marking available to oppose skidding.

2.5 priming coat

A substance used to improve adhesion between the tapes and pavement surfaces.

3 Performance requirements

3.1 Materials

3.1.1 White materials

When the material is applied to the road surface in accordance with appendix B and, where appropriate, tested in accordance with appendices C, D, E, F and G, it shall comply with 3.2.

3.1.2 Other coloured materials

Other coloured materials, in which pigmenting ingredient is the only difference from a white material complying with this British Standard, shall be deemed to comply with this British Standard, except in respect of luminance factor.

3.2 Requirements for the laid material

3.2.1 Luminance factor

When tested in accordance with appendix C, the luminance factor for the test area on each stripe of white material laid shall be not less than 60 on the day of application of the material and shall be not less than 40 at each of the regular inspection intervals thereafter.

3.2.2 Retroreflectivity

When tested in accordance with appendix D, the retroreflectivity of each stripe with surface applied beads shall be not less than 100 mcd/(lx·m²) when measured in the dry at any time during the test period.

3.2.3 Skidding resistance

When tested in accordance with appendix E, the skidding resistance for the test area on each stripe of material laid shall be not less than 55 on the day of application of the material, and shall be not less than 45 at each of the inspection intervals thereafter.

3.2.4 Degree of erosion

When assessed in accordance with appendix F, the total wear index for the test area on each stripe shall not exceed 35 at each of the inspection intervals.

3.2.5 Spread of markings

The width of each stripe, measured between 600 mm and 900 mm from the nearside white edge-line, shall not have varied at each of the inspection intervals by more than 5 % of its initial value.

3.2.6 Thickness

When determined in accordance with appendix G, no part of the stripe shall exceed 5 mm in thickness. In cases where road performance trials are successfully completed, the thickness of each stripe laid shall be accurately recorded on the Road Trial Certificate.

4 Laying

The material shall be laid in accordance with the manufacturer's instructions.

¹⁾ Available from The Stationery Office, PO Box 276, London SW8 5DT.