

Hot-applied thermoplastic road marking materials —

Part 2: Specification for road performance

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/25, upon which the following bodies were represented:

- British Resin Manufacturers' Association
- Chemical Industries Association
- County Surveyors' Society
- Department of Transport
- Department of Transport (Transport and Road Research Laboratory)
- Glass Manufacturers' Federation
- Institution of Civil Engineers
- Institution of Highways and Transportation
- Oil and Colour Chemists' Association
- Road Markings Manufacturers' and Contractors' Association
- Society of Chemical Industry

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Foreword

This British Standard has been prepared under the direction of the Road Engineering Standards Policy Committee. It is published in three Parts:

- *Part 1: Specification for constituent materials and mixtures;*
- *Part 2: Specification for road performance;*
- *Part 3: Specification for application of material to road surfaces.*

This Part of BS 3262 replaces BS 3262-2:1987 which is withdrawn.

There have been many changes in materials and methods of laying since the first issue of this standard in 1960 and the basis of the standard has been changed to include performance requirements. Part 1 specifies the composition and quality control requirements of mixtures. Part 2 specifies the performance requirements for type approval of hot-applied thermoplastic road marking materials when they have been applied to the road surface. Part 3 specifies the requirements for the application of material to the road surfaces.

This edition introduces technical changes to bring the standard up-to-date but it does not reflect a full review of the standard, which will be undertaken in due course.

In this new edition, requirements for black thermoplastic material are now included and the chemical description of the binder should be included in the information supplied for the road trial certificate.

Purchasers may request to be supplied with material which meets the requirements of this Part as well as those of BS 3262-1.

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. The trials are carried out on white materials meeting the requirements of BS 3262-1, though under specified conditions the results can be extended to yellow or black materials.

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 revision is the 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 qualified and experienced people.

This standard was confirmed in November 1995 on publication of amendment No. 3. The changes incorporated did 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.

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.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 8, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

This Part of BS 3262 specifies the performance requirements for type approval of white thermoplastic materials complying with BS 3262-1, which have been melted and applied hot to road surfaces using screeding or sprayed application, as thin superimposed markings for centre lines, edge lines, pedestrian crossing stripes and the like. It does not apply to thermoplastic materials intended to be inset into road surfaces.

Provision is made for the results obtained on the white material to be applicable to both yellow and black materials where the composition of these materials is the same as for the white material except for the pigment of the thermoplastic material. Provision is also made for the performance of the materials to be tested with the addition of solid glass beads.

Appendix A lists the preconditions for road performance trials.

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

2 Definitions

For the purposes of this Part of BS 3262 the definitions given in BS 3262-1 apply.

3 Designations

Road marking materials whose properties remain in accordance with 4.2 for a minimum of 2 years after laying shall be designated class A materials; those whose properties remain in accordance with 4.2 for a minimum of 1 year but less than 2 years after laying shall be designated class B materials.

4 Performance requirements

4.1 Materials

4.1.1 White materials. The white marking material and its constituents shall comply with BS 3262-1.

When the material is applied to a road surface in accordance with appendix B and, where appropriate, tested in accordance with appendices C and D, it shall comply with 4.2.

4.1.2 Yellow and black materials. Materials differing only in respect of pigmenting ingredient from a white material complying with this Part of BS 3262 shall be deemed to comply with this Part of BS 3262 and shall be of the same designation as that of white material.

4.1.3 Surface applied glass beads. Where required surface applied glass beads shall comply with the class B requirements of BS 6088 and shall be applied at a suitable rate to provide the specified retroreflectivity.

NOTE 1 For products where improved wet night visibility is required, glass beads of size 1 mm to 5 mm but otherwise complying with the requirements of BS 6088 may be specified and substituted for part or all of the total surface applied glass beads.

NOTE 2 The specifier should state the retroreflectivity level required for wet markings.

4.2 Requirements for the laid material

4.2.1 Luminance factor. The luminance factor for the test area on each non-surface beaded stripe shall be not less than 50 on the day of application of the material after a period of not less than 1 h, and shall be not less than 40 at each of the regular inspection intervals thereafter.

NOTE 1 No requirements is specified for the luminance of surface beaded stripes.

NOTE 2 If a manufacturer submits mixtures differing only in the amount of titanium dioxide, then only the mixture with the lowest level of luminance need be tested.

4.2.2 Degree of erosion. The total wear index for the test area on each stripe shall not exceed 35 at each of the regular inspection intervals.

4.2.3 Spread of markings. The width of each stripe, measured between 600 mm and 900 mm from the nearside kerb, shall not have increased, at each of the regular inspection intervals, by more than 10 % of its initial value.

4.2.4 Retroreflectivity. The retroreflectivity for the test area on each surface beaded stripe shall be not less than $100 \text{ mcd lx}^{-1} \text{ m}^{-2}$ on the day of application of the material after a period of not less than 1 h and shall be not less than $100 \text{ mcd lx}^{-1} \text{ m}^{-2}$ at each of the inspection intervals thereafter.

Retroreflectivity shall be measured using a portable retrometer according to the geometry and procedure described in BS 7396.

NOTE This method of measurement is based on a 50 m viewing geometry. Future methods may be based on a 30 m geometry.

4.2.5 Skid resistance. The skid resistance for the test area on each surface beaded stripe for reflectorized materials and each stripe for non-reflectorized materials measured at a distance of $650 \text{ mm} \pm 50 \text{ mm}$ from the nearside kerb shall be not less than 45 on the day of application of the material after a period of not less than 1 h and shall be not less than 45 at each of the regular inspection intervals thereafter.

Skid resistance shall be measured using the portable Skid Resistance Tester described in BS 3262-1.