AS 4049.2—2005

Australian Standard™

Paints and related materials—Pavement marking materials

Part 2: Thermoplastic pavement marking materials—For use with surface applied glass beads

STANDARDS AUSTRALIA

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The following are represented on Committee CH-003:

AUSTROADS
Australian Industry Group
Australian Motorcycle Council
Australian Paint Approval Scheme
Australian Paint Manufacturers' Federation
Main Roads Department, Queensland
Master Painters Australia
National Association of Testing Authorities Australia
Road Marking Industry Association of Australia
Surface Coatings Association Australia
Telstra Corporation
Water Corporation Western Australia

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PREFACE

This Standard was prepared by the Australian members of the Joint Australia/New Zealand Standards Committee CH-003, Paints and Related Materials. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than an Australian/New Zealand Standard.

This Standard supersedes AS 4049.2—1994, *Paints and related materials—Road marking materials—Thermoplastic road marking materials*.

This Standard is the second of three parts dealing with pavement marking materials. Other Standards in the AS 4049 Series are:

AS
4049 Paints and related materials—Pavement marking materials
4049.1 Part 1: Solvent-borne paint—For use with surface applied glass beads
4049.3 Part 3: Waterborne paint—For use with surface applied glass beads

This Standard provides mainly performance requirements for pavement marking materials but includes some compositional requirements.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

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FOREWORD

Pavement marking materials are expected to perform under a wide variety of application, curing and exposure conditions, and therefore need to be assessed in both the laboratory and in the field. This Standard provides test procedures and performance criteria aimed at identifying materials which will provide satisfactory performance in the majority of applications.

The skid resistance of a pavement marking material is not a fixed property for any given formulation. For a new marking it may vary according to the road surface and texture and it will also vary throughout its life according to conditions such as traffic wear and weathering. Whilst the drop-on addition of glass beads may increase the frictional characteristics, the resultant skid resistance levels may not satisfy the requirements of all road users.

It is recommended that users of this Standard consult material suppliers where skid resistance is a requirement for the applied marking.

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1 SCOPE

This Standard sets out requirements for thermoplastic markings formulated with Type C glass beads complying with AS/NZS 2009, already incorporated into the mix.

NOTES:

1 Alternative means for determining compliance with this Standard are given in Appendix A.

2 Additional information on the use and application of thermoplastic pavement marking materials, is contained in Appendix B.

3 Four types of thermoplastic road marking material considered by this Standard are:

(a) Spray.

(b) Extruded.

(c) Screed.

(d) Preformed.

4 This Standard does not set out requirements for profiled thermoplastic marking materials.

2 OBJECTIVE

The objective of this Standard is to provide requirements and recommendations which may be used when specifying thermoplastic pavement marking materials.

3 REFERENCED DOCUMENTS

A list of documents referred to in this Standard is given in Appendix C.

4 DEFINITIONS

For the purpose of this Standard the definitions in AS/NZS 2310 and those below apply.

4.1 Aggregate

A granular material of mineral composition, such as calcite, quartz or flint, used to provide the bulk of thermoplastic road marking material.

4.2 Binder

A thermoplastic resinous material which, with any included oils or other plasticizers, provides adhesion to the road surface and cohesion between the other components (i.e., extender, pigment, aggregate and solid glass beads).

4.3 Extender

A powder added to assist the dispersion of the pigment and impart body to the mixture.

4.4 Maximum safe heating temperatures

The temperature specified by the manufacturer, above which the material is not to be heated at any time.