AS 4049.1—2005

Australian Standard™

Paints and related materials—Pavement marking materials

Part 1: Solvent-borne paint—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
Roadmarking Industry Association of Australia
Surface Coatings Association of Australia
Telstra Corporation
Water Corporation Western Australia

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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand 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 4049.1—1992, *Paints and related materials—Road marking materials—Solvent-borne paint—For use with drop-on beads*.

This Standard is the first 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
4049.2	Part 2: Thermoplastic pavement marking materials—For use with surface applied glass beads
4049.3	Part 3: Water-borne paints—For use with surface applied glass beads

This Standard mainly provides performance requirements for pavement marking materials but includes some material 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 paints 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 paints which will provide satisfactory performance as a beaded and unbeaded pavement marking, in the majority of applications.

Skid resistance requirements have not been specified in this Standard. The skid resistance of a pavement marking paint is not a fixed property for any given formulation. For a new marking it may vary considerably according to the road surface and texture and it will also vary throughout its life according to conditions such as traffic wear and weather. Whilst the drop-on addition of glass beads may increase the frictional characteristics over that of unbeaded paint, the resultant skid resistance levels may not satisfy the requirements of all road users.

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

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Part 1: Solvent-borne paint—For use with surface applied glass beads

1 SCOPE

This Standard sets out requirements for solvent-borne paints as used for markings on pavement surfaces. The Standard is applicable to paints intended for use by spray application. It is also applicable to slower drying paints which may be applied by brush or roller. All paints are suitable for use with glass beads complying with AS/NZS 2009.

NOTES:

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

2 Spraying may be by air-atomizing or airless application processes.

2 OBJECTIVE

The objective of this Standard is to provide requirements and recommendations which may be used when specifying solvent-borne paints.

3 REFERENCED DOCUMENTS

A list of documents referred to in this Standard is contained in Appendix B.

4 DEFINITIONS

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

4.1 Retroreflectivity

The property of some materials such as solid glass beads, to reflect incident light in directions close to the direction from which it came.

4.2 Test pavement

Dense grade asphalt and/or sprayed bituminous surfacing constructed using an aggregate with a nominal size of 10 mm, in accordance with Table 1 of AS/NZS 2758.2. The pavement shall be free from the impact of turning vehicles, at least 6 months old and free from cracking, rutting or any other defects which may impact on the testing outcome.

5 CLASSIFICATION

For the purpose of this Standard, solvent-borne pavement marking paint shall be classified as follows:

(a) *Rapid drying* A pavement marking paint which has a maximum no-pick-up time of 5 min, when tested in accordance with AS/NZS 1580.401.8.

(b) *Slow drying* A pavement marking paint which has a no-pick-up time greater than 5 min but no more than 15 min, when tested in accordance with AS/NZS 1580.401.8.

NOTE: Where a paint supplied to this Standard is intended for application at elevated temperature then testing for the purposes of classification according to this Clause should be in accordance with AS/NZS 1580.401.8, except that the temperature of the paint when applied should be the manufacturer's recommended maximum spraying temperature.

