Australian Standard™

Masonry cement

Standards Australia

This Australian Standard was prepared by Committee BD-010, Cement. It was approved on behalf of the Council of Standards Australia on 13 December 2002 and published on 16 January 2003.

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PREFACE

This Standard was prepared by Standards Australia Committee BD-010, Cement, to supersede AS 1316—1972.

The objective of this Standard is to provide manufactures and users of masonry cement with specifications covering materials, composition, sampling, testing, physical requirements, packing and marking for masonry cement intended for use in mortars for masonry construction in conjunction with masonry units of clay, calcium silicate, concrete and square dressed natural stone.

This Standard incorporates the following major changes to AS 1316—1972:

(a) In line with Standards Australia policy of producing performance-based Standards, masonry cements are specified in terms of their performance, wherever possible.

(b) An attempt has been made to closely align this Standard with developments in AS 3700, *Masonry structures*, particularly in adopting the same masonry mortar classification.

(c) The revision of AS 1316—1972 produced two separate Standards, a specification for masonry cement (this Standard), and a suite of test methods for masonry cement published separately as part of the AS/NZS 2350 series.

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FOREWORD

Masonry cement is a finely ground mixture of portland cement clinker, calcium sulfate, and suitable inorganic materials such as hydrated lime as defined by AS 1672.1—1997, *Limes and limestones*, Part 1: *Limes for building*, and mineral additions, as defined by AS 3972—1997, *Portland and blended cements*. Suitable air-entraining agents or plasticizers, or both, may also be incorporated.

Masonry cement is intended for use in mortars for masonry construction in conjunction with masonry units of clay, calcium silicate, concrete and square dressed natural stone. When mixed with fine aggregates (sand) it produces a smooth, plastic and cohesive mortar characterized by a lower rate of strength development than that of general purpose portland cement. Hence, it may not be suitable for structural brickwork or for special purpose mortars where high strength is required although its strength may be increased by adding it with portland cement. For normal masonry construction, however, the lower rate of strength development is an advantage as shrinkage, thermal and other movements in the masonry can be better accommodated in the mortar joints and unsightly cracking prevented. Masonry cement is not intended for use in any form of structural concrete (plain, reinforced or prestressed), floors or foundation work.

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1 SCOPE

This Standard specifies requirements for masonry cement, a hydraulic cement intended for use in mortars for masonry construction in conjunction with masonry units of clay, calcium silicate, concrete and square dressed natural stone.

This Standard does not provide for all the requirements that may be needed in specific applications of masonry cement, e.g., high strength mortars.

NOTE: Autoclaved aerated concrete units (AAC) are laid in thin bed mortars that are proprietary, purpose-made mortars.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
1478	Chemical admixtures for concrete, mortar and grout—Admixtures for concrete
1672	Limes and limestones
1672.1	Part 1: Limes for building
2349	Method of sampling portland and blended cements
3582	Supplementary cementitious materials for use with portland and blended cement
3582.1	Part 1: Fly ash
3582.2	Part 2: Slag—Ground granulated iron blast-furnace
3700	Masonry structures
3972	Portland and blended cements
AS/NZS	
2350	Methods of testing portland, blended and masonry cements
2350.1	Method 1: Sampling and sample preparation
2350.4	Method 4: Setting time of portland and blended cements
2350.11	Method 11: Compressive strength of portland and blended cements
2350.16	Method 16: Determination of air content of masonry cement
2350.17	Method 17: Determination of soundness of masonry cement
2350.18	Method 18: Determination of water retention of masonry cement

3 MATERIALS

3.1 Portland cement clinker

Portland cement clinker shall comply with AS 3972.

3.2 General purpose portland cement

General purpose portland cement shall comply with AS 3972.

3.3 General purpose blended cement

General purpose blended cement shall comply with AS 3972.

3.4 Fly ash

Fly ash shall comply with AS 3582.1.