Australian Standard®

Insulating refractory ceramic fibres

Part 1: Bulk fibre and blankets

This Australian Standard was prepared by Committee MN/7, Refractories and Refractory Materials. It was approved on behalf of the Council of Standards Australia on 17 October 1995 and published on 5 March 1996.

The following interests are represented on Committee MN/7:

Aluminium Development Council

Australasian Ceramic Society

Australasian Institute of Mining and Metallurgy

Bureau of Steel Manufacturers of Australia

CSIRO, Division of Materials Science and Technology

Cement Industry Federation Ltd

Refractories Manufacturers Association of Australia

University of New South Wales

This Standard was issued in draft form for comment as DR 94385.

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PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7337 0175 2

PREFACE

This Standard was prepared by the Standards Australia Committee on Refractories and Refractory Materials. It arises from consideration of materials in use by the Australian industry.

In preparing this Standard, reference was made to BS 1902: Part 6: 1986, *Refractory materials*, Part 6: *Ceramic fibre products*; ASTM C 892-85, *High temperature fiber blanket thermal insulation*; and JIS R 3311-1985, *Ceramic fiber blanket*.

The objective of this Standard is to provide manufacturers and users of refractory ceramic fibres with a classification of such products.

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First published as AS 4359.1— 1996.

STANDARDS AUSTRALIA

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1 SCOPE This Standard specifies requirements for the classification and designation of insulating refractory ceramic fibres. It does not apply to 'glass', rockwool or mineral insulating materials.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS
1774 Refractories and refractory materials—Physical test methods
1774.5 Method 5: The determination of density, porosity and water absorption
1774.28 Method 28: Ceramic fibre products—Test methods

2497 Sampling procedure for acceptance testing of shaped refractory products

2503 Refractories and refractory materials—Chemical analysis
2503.2 Part 2: Aluminosilicate refractory materials

2780 Refractories and refractory materials—Glossary of terms

ASTM
C 177 Steady-state heat flux measurements and thermal transmission properties by means of the guarded-hot-plate apparatus

C 201 Thermal conductivity of refractories

3 DEFINITIONS For the purpose of this Standard, the definitions given in AS 2780 and those below apply.

3.1 Ceramic fibre—a ceramic material, in fibre form, produced traditionally from aluminosilicates having an alumina content of at least 30% by mass. The fibres have a high length-to-diameter ratio, which makes it possible to produce a variety of forms with varying characteristics.

3.2 Bulk fibre—fibre in loose form and having no shape.

3.3 Blanket—bulk fibre interlocked to give a continuous form.

4 SAFETY For information on safe handling of refractory ceramic fibres, reference should be made to the following publications:

(a) Worksafe Australia: Technical report on synthetic mineral fibres and guidance notes on the membrane filter method for the estimation of airborne synthetic mineral fibres. June 1989.

(b) Worksafe Australia: Synthetic mineral fibres. National Standard and national code of practice. May 1990.

5 CLASSIFICATION Ceramic fibres shall be classified by type, dimension, density, classification temperature and chemical composition, in accordance with Table 1.