

Translated and Published by Japanese Standards Association

 $JIS \ A \ 5430^{\,:\,2013}$

(SKC/JSA)

Fibre reinforced cement boards

ICS 91.100.40

Reference number : JIS A 5430 : 2013 (E)

A 5430:2013

Date of Establishment: 1995-01-01

Date of Revision: 2013-12-20

Date of Public Notice in Official Gazette: 2013-12-20

Investigated by: Japanese Industrial Standards Committee

Standards Board

Technical Committee on Architecture

JIS A 5430:2013, First English edition published in 2016-05

Translated and published by: Japanese Standards Association Mita MT Building, 3-13-12, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

In the event of any doubts arising as to the contents, the original JIS is to be the final authority.

© JSA 2016

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan

NH/AT

Contents

	Page
Intro	duction1
1	Scope1
2	Normative references — 1
3	Terms and definitions ————————————————————————————————————
4	Composition ————————————————————————————————————
5	Classifications and their abbreviations2
6 6.1 6.2 6.3 6.4 6.5 6.6 6.7 6.8 6.9 6.10 6.11 6.12 6.13	Quality 3 Appearance 3 Breaking load 3 Bending strength 4 Water absorption 4 Bulk density 4 Water permeability 4 Length changing rate by water absorption 4 Thermal conductivity 4 Incombustibility or heat generation property 4 Freeze-thaw resistance 4 Warm water immersion resistance 4 Heat-rain resistance 4 Soak-dry resistance 5
7 7.1 7.2	Shape, dimensions and tolerances
8	Tests
9 9.1 9.2 9.3 9.4 9.5 9.6 9.7	Test methods
9.9	Incombustibility test or heat generation test18

A 5430 : 2013

9.10	Freeze-thaw resistance test				
9.11	Warm water immersion resistance test				
9.12	Heat-rain resistance test ······				
9.13	Soak-dry resistance test				
10	•				
11	Designation of pro	duct	22		
12	Marking		····23		
Anne	x JA (normative)	rest method and evaluation of heat generation			
	1	property	$\cdots 24$		
Anne	x JB (informative)	Fittings necessary for construction	30		
Anne	x JC (informative)	Comparison table between JIS and corresponding			
		International Standards	31		
Anne	x JD (informative)	Comparison table between previous and current			
		editions of this Standard on technically significant			
		revisions	53		

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Fibre-reinforced Cement Sheets Association (SKC)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently JIS A 5430:2008 is replaced with this Standard.

However, **JIS A 5430**:2008 may be applied in the **JIS** mark certification based on the relevant provisions of Article 19 Clause 1, etc. of the Industrial Standardization Law until June 19, 2014.

This **JIS** document is protected by the Copyright Law.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

Fibre reinforced cement boards

JIS A 5430: 2013

Introduction

This Japanese Industrial Standard has been prepared based on the second edition of **ISO 8336** published in 2009 and the first edition of **ISO 10904** published in 2011 with some modifications of the technical contents including incorporation of shape and dimensions uniquely applied in Japan.

The portions with continuous sidelines or dotted underlines are the matters in which the contents of the corresponding International Standards have been modified. A list of modifications with the explanations is given in Annex JC.

1 Scope

This Standard specifies fibre (other than asbestos)-reinforced and formed slates (corrugated sheets and flat sheets), calcium silicate boards and slag gypsum wall boards (hereafter referred to as "fibre reinforced cement boards").

- NOTE 1 Annex JB shows fittings necessary for construction for informative purposes.
- NOTE 2 The International Standards corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 8336:2009 Fibre-cement flat sheets—Product specification and test methods

ISO 10904:2011 Fibre-cement corrugated sheets and fittings for roofing and cladding (Overall evaluation: MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standards and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. For standards with the year indication, only the editions of the indicated year shall be applied and the revisions (including amendments) made thereafter shall not be applied. For those without the indication of the year, the most recent edition (including amendments) shall be applied.

- JIS A 1129-1 Methods of measurement for length change of mortar and concrete— Part 1: Method with comparator
- JIS A 1321 Testing method for incombustibility of internal finish material and procedure of buildings
- JIS A 1408 Test methods of bending and impact for building boards
- JIS A 1412-1 Test method for thermal resistance and related properties of thermal insulations—Part 1: Guarded hot plate apparatus

A 5430: 2013

JIS A 1412-2 Test method for thermal resistance and related properties of thermal insulations—Part 2: Heat flow meter apparatus

JIS A 1435 Method of test for resistance of exterior materials of buildings to freezing and thawing

JIS A 9510:2009 Inorganic porous thermal insulation materials

JIS B 7502 Micrometer callipers

JIS B 7507 Vernier, dial and digital callipers

JIS B 7512 Steel tape measures

JIS B 7516 Metal rules

JIS B 7518 Vernier, dial and digital depth gauges

JIS B 7526 Squares

JIS K 1464 Desiccants, activated for industrial dehumidification

JIS K 8123 Calcium chloride (Reagent)

3 Terms and definitions

For the purpose of this Standard, the following terms and definitions apply.

3.1 acceptance test

routine test to establish whether a batch of continuous products conforms to a specification

3.2 type test

test concerned with the approval of a new product and/or a fundamental change in formulation and/or method of manufacture

4 Composition

Fibre reinforced cement boards consist essentially of cement, calcareous material, siliceous material, slag, gypsum and fibre other than asbestos, and the admixture of reinforcing material, packing material and so on, or pigment may be added.

5 Classifications and their abbreviations

Classifications, their abbreviations, material and main usages of fibre reinforced cement boards are as shown in Table 1.

A 5430: 2013

Table 1 Classifications and their abbreviations

Classification			Abbrevia- tion	Material ^{a)}	Main usage
Slates	Corrugated sheets	Shallow corrugation	SC	Cement, fibre other than asbestos and admixture.	Exterior wall
		Deep corrugation	LC		Roofing and exterior wall
	Flat sheets	Flexible boards A	FA		Interior and exterior finishing
		Flexible boards	F		Interior and exterior finishing
		Soft flexible boards	NF		Interior and exterior finishing
		Flat boards	S		Interior and exterior finishing
		Soft boards	N		Interior and exterior finishing
Calcium silicate	te	0.8 Calcium silicate boards	0.8FK	siliceous material, fibre	Interior finishing
boards		1.0 Calcium silicate boards	1.0FK		Interior finishing
	Type 3	0.2 Calcium silicate boards	0.2TK	Calcareous material, siliceous material, fibre	Fire resist covering
		0.5 Calcium silicate boards	0.5TK	other than asbestos, and the admixture.	Fire resist covering
Slag	0.8 Slag gyp	8 Slag gypsum wall boards		Cement, slag, gypsum, fibre other than asbestos, and the admixture.	Interior finishing
gypsum	1.0 Slag gypsum wall boards		1.0SGI		Interior finishing
boards	1.4 Slag gypsum wall boards		1.4SGI		Interior finishing
wall			1.4SGI		

The material of slate may contain siliceous material.

The material of calcium silicate board (Type 2) may contain cement.

6 Quality

6.1 Appearance

The appearance of fibre reinforced cement boards, when it is visually inspected, shall conform to the criteria given in Table 2.

Table 2 Type of appearance defect and level of acceptance

Type of defect	Level of acceptance
Cracks or penetrating cracks	No such defects shall be found.

6.2 Breaking load

The breaking load of slates (corrugated sheets), when the test specified in 9.3.1 is carried out, shall conform to the requirement in Table 3.