



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS Z 1402 : 2020

(Jpa/JSA)

**Construction of wooden boxes for
packing**

ICS 55.160;79.040

Reference number : **JIS Z 1402 : 2020 (E)**

Date of Establishment: 1951-10-31

Date of Revision: 2020-10-20

Date of Public Notice in Official Gazette: 2020-10-20

Investigated by: Japanese Industrial Standards Committee
Standards Board for ISO area

JIS Z 1402:2020, First English edition published in 2021-06

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 2021

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

AT

Contents

	Page
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Classification and design elements	1
4.1 Classification	1
4.2 Design classification	2
5 Constructions and dimensions	7
5.1 General conditions	7
5.2 Constructions and dimensions of normal wooden box (Type I)	9
5.3 Constructions and dimensions of skidded wooden box (Type II)	15
6 Materials	36
6.1 Lumbers	36
6.2 Plywood	37
6.3 Metallic materials	37
6.4 Waterproof materials	38
7 Assembling methods	38
7.1 Assembling method of wooden box (Type I)	38
7.2 Assembling method of skidded wooden box (Type II)	39
7.3 Methods of nailing and bolting	40
Annex A (normative) Allowable bending load of load bearing floor members	51
Annex B (normative) Test strength and allowable strength of lumbers	54
Annex C (normative) Exceptions of skid base form and assembling method	60
Annex D (informative) Obtaining methods of thickness and unsupported distance of outer boards for Type I•B	61

Foreword

This Japanese Industrial Standard has been 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 Japan Packing Association (Jpa)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS Z 1402:2014**), which has been technically revised.

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

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

Construction of wooden boxes for packing

1 Scope

This Japanese Industrial Standard specifies the construction of wooden boxes intended for the transport packaging of contents of not more than 1 500 kg in mass, having the external dimensions of not more than 6.0 m in length, not more than 1.5 m in width and not more than 2.25 m in height.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS A 5508 *Nails*

JIS B 1180 *Hexagon head bolts and hexagon head screws*

JIS B 1181 *Hexagon nuts and hexagon thin nuts*

JIS G 3141 *Cold-reduced carbon steel sheet and strip*

JIS Z 0107 *Glossary of terms used in wooden box for packing*

JIS Z 0108 *Packaging—Vocabulary*

JIS Z 1514 *Polyethylene coated paper*

Japanese Agricultural Standard (JAS) *Plywood*

Japanese Agricultural Standard (JAS) *Laminated veneer lumber*

3 Terms and definitions

For the purpose of this Standard, the terms and definitions given in **JIS Z 0107** and **JIS Z 0108** apply.

4 Classification and design elements

4.1 Classification

The wooden boxes are classified as shown in Table 1 according to the mass of contents, construction and usage method of outer boards. Construction examples are shown in Figure 1 and Figure 2. Also, the constructions of end faces and end battens of normal wooden box are shown in Figure 4 to Figure 8.