

Translated and Published by Japanese Standards Association

 $JIS\ A\ 5015^{\,:\,2018}$

(NSA)

Iron and steel slag for road construction

 $\mathbf{ICS} \ 91.100.15; 93.080.20$

 $Reference\ number:\ JIS\ A\ 5015:2018\ (E)$

A 5015: 2018

Date of Establishment: 1979-11-01

Date of Revision: 2018-12-20

Date of Public Notice in Official Gazette: 2018-12-20

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

Technical Committee on Civil Engineering

JIS A 5015:2018, First English edition published in 2019-06

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 2019

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

KK/AT

Contents

	Page
Intr	oduction ······ 1
	Scope 1
1	•
2	Normative references 1
3	Terms and definitions ————————————————————————————————————
4	Classification and designation ————4
5 5.1 5.2	Quality 5 General 5 Physical and chemical properties, and grading of hydraulic and mechanically stabilized slag, mechanically stabilized slag and crusher run
5.3 5.4 5.5	Steel slag
6 6.1 6.2	Ageing 8 Steelmaking slag used for hydraulic and mechanically stabilized slag, mechanically stabilized slag and crusher run steel slag 8 Steelmaking slag used for single-sized steel slag and crusher run steelmaking slag 8
7 7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9	Test methods8Sampling8Colouration judgement test8Immersion expansion test8Bulk density test9Unconfined compression test9Tests for density in saturated surface-dry condition and water absorption9Abrasion loss test9Grading test9Tests for environmentally sound quality9
8 8.1 8.2 8.3 8.4 8.5	Inspection 9 Test items 9 Inspection 10 Management of production lot 12 Size of inspection lot 12 Frequency of inspection 12

A 5015:2018

8.6	Storage of inspection data		
9	Marking		12
10	Report ·····		. 13
Ann	ex A (normative)	Colouration test for iron and steel slag	. 22
Ann	ex B (normative)	Immersion expansion test for iron and steel slag	. 24
Ann	ex C (normative)	Test method for unconfined compression of iron and steel slag·····	. 29
Ann	ex D (normative)	Environmentally sound quality test method for iron and steel slag·····	. 32
Ann	ex E (informative)	Preparation of hot asphalt mixture moulded body and bitumen-stabilized moulded body	37
Ann	ex F (informative)	Comparison table between previous and current editions of this Standard on technically significant revisions	40

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 Nippon Slag Association (NSA) 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 5015**:2013 is replaced with this Standard.

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.

Iron and steel slag for road construction

JIS A 5015: 2018

Introduction

This Japanese Industrial Standard was established to provide quality requirements for slag products that utilize iron and steel slag produced in steel manufacturing, and that are intended for use in a base course mixture or hot laid asphalt mix for road construction.

Since its establishment in 1979, this Standard has been revised five times including the revision at this time. The comparison table between previous and current editions of this Standard on technically significant revisions is given in Annex F.

No corresponding International Standard has been established at this point.

1 Scope

This Standard specifies requirements for the iron and steel slag intended for use in a base course mixture or hot laid asphalt mix for road construction (hereafter referred to as iron and steel slag).

- NOTE 1 Iron and steel slag is either a blast furnace slag produced in manufacturing of pig iron or a steelmaking slag produced in manufacturing of steel, the former being further classified into air-cooled blast furnace slag and granulated blast-furnace slag, depending on the cooling method used, and the latter into convertor-system slag and the electric furnace-system slag, depending on the steel manufacturing process by which the slag was produced.
- NOTE 2 Iron and steel slag for road construction may be produced from blast furnace slag and steelmaking slag in a mixture or individually for use as a base course material, or produced from steelmaking slag for use as an aggregate for hot laid asphalt mix or bituminous stabilization.

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 1102 Method of test for sieve analysis of aggregates
- JIS A 1103 Method of test for amount of material passing test sieve 75 mum in aggregates
- JIS A 1104 Methods of test for bulk density of aggregates and solid content in aggregates
- JIS A 1110 Methods of test for density and water absorption of coarse aggregates
- JIS A 1121 Method of test for resistance to abrasion of coarse aggregate by use of the Los Angeles machine
- JIS A 1203 Test method for water content of soils