

JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS G 0556 : 2022

(JISF)

Method of macro-streak-flaw test for steel

ICS 77.040.99

Reference number : JIS G 0556 : 2022 (E)

PROTECTED BY COPYRIGHT

11 S

G 0556 : 2022

Date of Establishment: 1956-05-25

Date of Revision: 2022-12-20

Date of Public Notice in Official Gazette: 2022-12-20

Developed by: The Japan Iron and Steel Federation

Investigated by: The Japan Iron and Steel Federation, Standardization
Center

JIS G 0556 : 2022, First English edition published in 2023-03

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 2023

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

HN

PROTECTED BY COPYRIGHT

Contents

	Page
Introduction	1
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Types of test methods	2
5 Step machined test method	2
5.1 Principle	2
5.2 Test piece	2
5.3 Test	3
5.4 Determination	3
5.5 Indication	4
6 Blue fracture test method	6
7 Magnetic particle inspection method	7
8 Test report	7
Annex JA (normative) Blue fracture test method	8
Annex JB (normative) Magnetic particle inspection method	12
Annex JC (informative) Comparison table between JIS and corresponding International Standard	15

Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry based on the provision of Article 14, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act in response to a proposal for revision of Japanese Industrial Standard with a draft being attached, submitted by The Japan Iron and Steel Federation (JISF), an accredited standards development organization. This edition replaces the previous edition (**JIS G 0556** : 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 is not responsible for identifying any of such patent rights, published patent application or utility model rights.

Method of macro-streak-flaw test for steel

Introduction

This Japanese Industrial Standard has been prepared based on **ISO 3763** :1976, Edition 1, with some modifications of the technical contents.

Annex JA and Annex JB are unique to **JIS** and not given in the corresponding International Standard. The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JC.

1 Scope

This Standard specifies a step machined test method, blue fracture test method and magnetic particle inspection method for assessing the content of macro-streak-flaws (pinholes, blowholes, non-metallic inclusions, inclusions of foreign matter, etc.) in rolled or forged steel with the naked eye or under appropriate magnification.

NOTE 1 The corresponding International Standard specifies a magnification of not more than $\times 10$.

NOTE 2 The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 3763 : 1976 *Wrought steels — Macroscopic methods for assessing the content of non-metallic inclusions* (MOD)

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

2 Normative references

Part or all of the provisions of the following standards, 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 B 0601 *Geometrical Product Specifications (GPS) — Surface texture : Profile method — Terms, definitions and surface texture parameters*

JIS G 0202 *Glossary of terms used in iron and steel (Testing)*

JIS G 0701 *Symbols of forming ratio for steel forging*

JIS Z 2320-1 *Non-destructive testing — Magnetic particle testing — Part 1 : General principles*

JIS Z 8401 *Rounding of numbers*