

## THE JAPAN IRON AND STEEL FEDERATION STANDARD

# Hot-rolled steel sheet and strip for automobile use

JFS A 1001:2020



Translated and Published by

THE JAPAN IRON AND STEEL FEDERATION

#### Preface

The Japan Iron and Steel Federation is engaged in preparation of draft Japanese Industrial Standards (JIS) for iron and steel materials and products, internal deliberation of International Standards, and establishment of the Japan Iron and steel Federation Standards (JFS).

The draft in the Japanese language of this standard was prepared by the Standards Committee for Steel Products of the Japan Iron and Steel Federation, with the cooperation of the material Committee of Japan Automobile manufacturers Association, then deliberated and approved by the Standards Committee which consists of manufacturers, users and authorities on steel sheets for automobile use. Following the procedure under the WTO/TBT agreement, after a disclosure period of 60 days, it has been published as a standard.

The Japanese version is the official version of this standard, and the English version is a translation from the Japanese version and is prepared for the convenience of those who use any other language than Japanese, so any ultimate reference should be made to the Japanese version.

For the standards that are referred to this standard, such as JFS, JIS and ISO, users of this standard are encouraged to use the latest edition of the respective standards.

Printed in Japan Copyright © 2020 by The Japan Iron and Steel Federation All rights reserved.

No part of this publication may be reproduced in any form without our written permission.

Con	<b>tents</b>	ge
Forew	vord	٠ 1
1	Scope	. 1
2	Normative references·····	- 1
3	Terms and definitions ·····	. 2
4	Type, designation and applicable nominal thickness	. 2
5	Surface finish	
6	Oiling	. 2
7	Chemical composition ······	. 3
8 8.1 8.2	Mechanical properties	3 3 3
8.3 8.4	Hole expansibility	· 3
9	Representation of dimensions ······	- 4
10	Standard thickness·····	
11 11.1 11.2 11.3 11.4	Dimensional tolerance	- 4 - 4 - 4
12 12.1 12.2 12.3 12.4	Shape Flatness of steel sheet Flatness classes and designations of steel sheet Camber Out-of-squareness	· 4 · 5 · 5
13 13.1 13.2	Mass of steel sheet	- 5
14 14.1 14.2 14.3	Appearance  General  Classes, applicable surface, and designations  Criteria for harmful imperfections	- 5 - 5 - 6
15 15.1 15.2	Testing ····· Chemical analysis ······ Mechanical test ······	- 6
16 16.1 16.2	Inspection and reinspection	- 7
17	Information to be supplied by the purchaser ······	. 7
18	Marking ·····	
19	Report ·····	- 9

JFS A 1001: 2020

# Hot-rolled steel sheet and strip for automobile use

### **Foreword**

In the field of steel sheet and strip for automobiles use, the requirements for the material were becoming advanced and with wider divergence, which resulted in a large number of specifications in this field. For the convenience of the interested parties, the studies for summarizing these specifications to develop unified standards were carried out by the Japan Iron and Steel Federation. As a result of the study, the Japan Iron and Steel Federation Standards for Automobile Use, which contain this standard JFS A 1001, were established in 1996. After the establishment, the revisions of the Japan Iron and Steel Federation Standards were made in 1998, 2008, 2012 and 2014. In 2020, JFS A 1001 has been revised again so as to harmonize the contents of the standard with the actual use conditions.

## 1 Scope

This standard applies to hot-rolled steel sheet and strip for automobile use (hereinafter referred to as steel sheet and strip).

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For references, the latest edition of the referenced document (including any amendments) applies.

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

JIS G 0203, Glossary of terms used in iron and steel (Products and quality)

JIS G 0320, Standard test method for heat analysis of steel products

JIS G 0404, Steel and steel products — General technical delivery requirements

JIS G 0415, Steel and steel products — Inspection documents

JIS Z 2241, Metallic materials — Tensile testing — Method of test at room temperature

JIS Z 2248, Metallic materials — Bend test

JIS Z 2256, Metallic materials — Hole expanding test

JIS Z 8401, Guide to the rounding of numbers