

# JIS

## JAPANESE INDUSTRIAL STANDARD

Hot Rolled High Strength  
Steel Sheets with  
Improved Formability for  
Automobile Structural Uses

JIS G 3134—1990

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Hot Rolled High Strength  
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Automobile Structural Uses

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## 1. Scope

This Japanese Industrial Standard specifies the hot rolled high strength steel sheets and coils with improved formability to be used mainly for automobiles (hereafter referred to as the "steel sheets and coils").

Further, the applicable thickness shall be as specified in Table 1-1 or Table 1-2.

Remark: The units and the numerical values given in { } in this Standard are based on the International System of Units (SI) and appended for informative reference.

Further, the traditional units accompanied by numerical values in this Standard shall be converted to the SI units and numerical values on January 1, 1991.

## 2. Grade and Symbols

Steel sheets and coils shall be classified into five grades and their symbols shall be as given in Table 1-1 or Table 1-2.

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### Applicable Standards:

JIS G 0303-General Rules for Inspection of Steel

JIS G 3193-Dimensions, Weight and Permissible Variations of Hot Rolled Steel Plates, Sheets and Strip

JIS Z 2201-Test Pieces for Tensile Test for Metallic Materials

JIS Z 2204-Bend Test Pieces for Metallic Materials

JIS Z 2241-Method of Tensile Test for Metallic Materials

JIS Z 2248-Method of Bend Test for Metallic Materials

Table 1-1. Symbols of Grades  
(Applicable till the end of 1990)

Grade symbol	Applicable thickness mm	Remark
SPFH 50	1.6 or over up to and incl. 6.0	Forming quality
SPFH 55		
SPFH 60		
SPFH 55 Y	2.0 or over up to and incl. 4.0	Improved forming quality
SPFH 60 Y		

Table 1-2. Symbols of Grades  
(Applicable on and after January 1, 1991)

Grade symbol		Applicable thickness mm	Remark
SI unit	(For reference) Traditional unit		
SPFH 490	SPFH 50	1.6 or over up to and incl. 6.0	Forming quality
SPFH 540	SPFH 55		
SPFH 590	SPFH 60		
SPFH 540 Y	SPFH 55 Y	2.0 or over up to and incl. 4.0	Improved quality
SPFH 590 Y	SPFH 60 Y		

### 3. Chemical Composition

The chemical composition shall be agreed upon by the purchaser and supplier, if necessary.

### 4. Mechanical Properties

Steel sheets and coils shall be tested in accordance with 7. and their tensile strength, yield point or proof stress, elongation and bendability shall conform to Table 2-1 or Table 2-2.

In the bending test, no cracks shall be generated on the outside of the bent portion.