



# MALAYSIAN STANDARD

MS ISO/TS 4949:2016

**Steel names based on letter symbols  
(First revision)  
(ISO/TS 4949:2016, IDT)  
(Published by Department of Standards Malaysia  
in 2023)**

**ICS: 77.080.20**

Descriptors: steel, steel grades, letter symbol, principal characteristics

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**DEPARTMENT OF STANDARDS MALAYSIA**

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## **Committee representation**

The National Standards Committee on Metallic Materials and Semi-finished Products (NSC 16) under whose authority this Malaysian Standard was developed, comprises representatives from the following organisations:

Association of Consulting Engineers Malaysia  
Construction Industry Development Board Malaysia  
Department of Standards Malaysia (Secretariat)  
Federation of Malaysian Manufacturer  
IKRAM QA Services Sdn. Bhd  
Jabatan Kerja Raya  
Malaysia Steel Association  
Malaysia Steel Institute  
Malaysian Iron and Steel Industry Federation  
Master Builders Association Malaysia  
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The Institution of Engineers, Malaysia  
Universiti Malaya  
Universiti Sains Malaysia  
Universiti Teknologi Malaysia

The Technical Committee on Testing, Sampling and Terminology of Iron and Steel (NSC 16/TC 7) which developed this Malaysian Standard consists of representatives from the following organisations:

Universiti Kebangsaan Malaysia  
Department of Standards Malaysia (Secretariat)  
Ann Joo Steel Berhad  
Association of Consulting Engineers Malaysia  
DRB-HICOM Berhad  
IKRAM QA Services Sdn Bhd  
Jabatan Kerja Raya  
Malaysian Iron and Steel Industry Federation  
SIRIM QAS International Sdn Bhd  
Universiti Malaysia Perlis

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## National foreword

The adoption of the ISO Standard as a Malaysian Standard was recommended by the Technical Committee on Terminology, Sampling and Testing of Iron and Steel (NSC 16/TC 7) under the authority of the National Standards Committee on Metallic Materials and Semi-finished Products (NSC 16).

This first revision of MS ISO/TS 4949 cancels and replaces MS ISO/TS 4949:2007, *Steel names based on letter symbols*.

This Malaysian Standard is identical with ISO/TS 4949, *Steel names based on letter symbols*, published by the International Organization for Standardization (ISO). However, for the purposes of this Malaysian Standard, the following apply:

- a) in the source text, "this International Standard" should read "this Malaysian Standard";
- b) the comma which is used as a decimal sign (if any), to read as a point;
- c) addition of symbol '+T' by means hot dip lead tin alloy (terne) coating and '+TE' by means electrolytic lead tin alloy (terne) coating in Annex B; and
- d) reference to International Standards should be replaced by corresponding Malaysian Standards as follows:

### Referenced International Standards

ISO 4948-1, *Steels - Classification – Part 1 – Classification of steels into unalloyed and alloy steels based on chemical composition*

ISO 4948-2, *Steels – Classification – Part 2 – Classification of unalloyed and alloy steels according to main quality classes and main property or application characteristics*

ISO 6929, *Steel products – Definitions and classification*

### Corresponding Malaysian Standards

MS ISO 4948-1, *Steels - Classification – Part 1 – Classification of steels into unalloyed and alloy steels based on chemical composition*

MS ISO 4948-2, *Steels – Classification – Part 2 – Classification of unalloyed and alloy steels according to main quality classes and main property or application characteristics*

MS ISO 6929, *Steel products – Definitions and classification*

Compliance with a Malaysian Standard does not itself confer immunity from legal obligations.

NOTE: IDT on the front cover indicates an identical standard i.e. a standard where the technical content, structure, and wording (or is an identical translation) of a Malaysian Standard is exactly the same as in an international Standard or is identical in technical content and structure although it may contain the minimal editorial changes specified in clause 4.2 of ISO/IEC Guide 21-1:2005.