MALAYSIAN STANDARD

MS 1525: 2019

Energy efficiency and use of renewable energy for non-residential buildings - Code of practice (Third revision)

ICS: 91.040.01

Descriptors: energy efficiency, renewable energy, non-residential, buildings, code of practice

DEPARTMENT OF STANDARDS MALAYSIA

Contents

Committee representation

The Industry Standards Committee on Building, Construction and Civil Engineering (ISC D) 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 Irrigation and Drainage Malaysia
Department of Standards Malaysia (Secretariat)
Federation of Malaysian Manufacturers
Fire and Rescue Department Malaysia
Jabatan Kerajaan Tempatan
Jabatan Kerja Raya
Malaysian Iron and Steel Industry Federation
Malaysian Timber Industry Board
Master Builders Association Malaysia
Pertubuhan Akitek Malaysia
Projek Lebuhraya Usahasama Berhad
Real Estate and Housing Developers' Association Malaysia
SIRIM Berhad (Former Secretariat)
Suruhanjaya Perkhidmatan Air Negara
The Cement and Concrete Association of Malaysia
The Institution of Engineers, Malaysia
Universiti Putra Malaysia
Universiti Sains Malaysia
Universiti Teknologi Malaysia

The Technical Committee on Energy Efficiency of Buildings (Passive) which supervised the development of this Malaysian Standard consists of representatives from the following organisations:

Association of Consulting Engineers Malaysia
Construction Industry Development Board Malaysia
Energy Commission
Federation of Malaysian Manufacturers
Jabatan Kerja Raya
Malaysia Energy Centre
Ministry of Housing and Local Government
Pertubuhan Akitek Malaysia
SEDA Malaysia
SIRIM Berhad (Secretariat)
SIRIM QAS International Sdn Bhd
The Institution of Engineers, Malaysia
Universiti Islam Antarabangsa Malaysia
Universiti Teknologi MARA
Universiti Teknologi Malaysia

The working groups which developed this Malaysian Standard consists of representatives from the following organisations.

Working Group on Architecture and Passive Design Strategy:

Institute of Landscape Architects Malaysia
Malaysia Green Building Confederation
SIRIM Berhad (Secretariat)
Suruhanjaya Tenaga
Universiti Islam Antarabangsa Malaysia
Universiti Kebangsaan Malaysia
Universiti Putra Malaysia
Universiti Teknologi MARA

Co-opted member:

Universiti Teknologi MARA (Faculty of Applied Science)

Committee representation *(continued)*

Working Group on Building Envelope:

ASHRAE Malaysia Chapter
Association of Consulting Engineers Malaysia
Energy Commission
Federation of Malaysian Manufacturers
Greenbuildingindex Sdn Bhd
Malaysia Green Building Confederation
Malaysian Sheet Glass Sdn Bhd
Pertubuhan Akitek Malaysia
SIRIM Berhad (Secretariat)
The Institution of Engineers, Malaysia
Universiti Putra Malaysia

Working Group on Lighting:

Association of Consulting Engineers Malaysia
Energy Commission
Jabatan Kerja Raya
Malaysia International Commission on Illumination
Philips Lighting Commercial (M) Sdn Bhd
SIRIM Berhad (Secretariat)
SIRIM QAS International Sdn Bhd
Tenaga Nasional Berhad
The Electrical and Electronics Association of Malaysia
The Institution of Engineers, Malaysia

Working Group on Electric Power and Distribution:

Association of Consulting Engineers Malaysia
FMM Malaysian Insulation Manufacturers Group
Jabatan Kerja Raya
SIRIM Berhad (Secretariat)
The Institution of Engineers, Malaysia

Working Group on Air-conditioning and Mechanical Ventilation (ACMV) System:

ASHRAE Malaysia Chapter
Association of Consulting Engineers Malaysia
Carrier (Malaysia) Sdn Bhd
Daikin Applied (Malaysia) Sdn Bhd
Daikin Research & Development Malaysia Sdn Bhd
Dunham-Bush Industries Sdn Bhd
Energy Commission
Jabatan Kerja Raya
Malaysian Air-Conditioning & Refrigeration Association
SIRIM Berhad (Secretariat)
Smartech International Sdn Bhd
The Institution of Engineers, Malaysia
Toyo CR Sdn Bhd
Trane Malaysia Sales & Services Sdn Bhd

Co-opted member:

Euroklimat Sales & Services Sdn. Bhd

Committee representation *(concluded)*

Working Group on Energy Management System (EMS):

ASHRAE Malaysia Chapter
Association of Consulting Engineers Malaysia
Building Automation System Association of Malaysia
Cofreth (M) Sdn Bhd
Energy Commission
Greenbuildingindex Sdn Bhd
Jabatan Kerja Raya
Malaysian Air-Conditioning & Refrigeration Association
Malaysian Association of Energy Service Companies
SIRIM Berhad (Secretariat)
The Electrical and Electronics Association of Malaysia
The Institution of Engineers, Malaysia

Working Group on Building Performance:

ASHRAE Malaysia Chapter
Association of Consulting Engineers Malaysia
Building Automation System Association of Malaysia
Greenbuildingindex Sdn Bhd
Jabatan Kerja Raya
Malaysia Green Building Confederation
Malaysian Association of Energy Service Companies
SEDA Malaysia
SIRIM Berhad (Secretariat)
The Institution of Engineers, Malaysia

Foreword

This Malaysian Standard was developed by several working groups under the supervision of Technical Committee on Energy Efficiency in Buildings (Passive), under the authority of the Industry Standards Committee on Building, Construction and Civil Engineering.

Major modifications of this revision are as follows:

a) improvement to description on passive design strategies especially daylighting, facade design and renewable energy;

b) new figures for horizontal and vertical projection of shading coefficients;

c) replacement of figure for egg crate shading coefficient with tables;

d) ACMV outdoor design wet bulb temperature is revised; and

e) introduction of Building Energy Intensity (BEI) Benchmark in Clause 10.

This Malaysian Standard cancels and replaces MS 1525:2014, *Code of practice on energy efficiency and use of renewable energy for non-residential buildings (Second revision).*

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

