MALAYSIAN STANDARD

MS 1714:2003

SPECIFICATION FOR VISUAL STRENGTH GRADING OF TROPICAL HARDWOOD TIMBER

ICS: 01.040.79

Descriptors: visual strength grading, tropical hardwood, grades

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Committee representation

The Building and Civil Engineering Industry Standards Committee (ISC D) under whose supervision this Malaysian Standard was developed, comprises representatives from the following organisations:

Association of Consulting Engineers, Malaysia
Chartered Institute of Building Malaysia
Construction Industry Development Board, Malaysia
Department of Standards Malaysia
Jabatan Bomba dan Penyelamat Malaysia
Jabatan Kerja Raya Malaysia
Jabatan Perumahan Negara
Malaysian Timber Industry Board
Master Builder's Association Malaysia
Pertubuhan Akitek Malaysia
Suruhanjaya Tenaga
The Institution of Engineers, Malaysia
Universiti Teknologi Malaysia

The Technical Committee on Timber and Timber Products which supervised the development of this Malaysian Standard was managed by the Malaysian Timber Industry Board in its capacity as an authorised Standards-Writing Organisation and consists of representatives from the following organisations:

Construction Industry Development Board Malaysia

Forestry Department of Peninsular Malaysia

Forestry Department of Sabah

Forest Research Institute Malaysia

Malaysian Furniture Industry Council

Malaysian Panel-Products Manufacturers' Association

Malaysian Timber Industry Board (Secretariat)

Malaysian Wood Industries Association

Malaysian Wood Moulding and Joinery Council

Malaysian Wood Preserving Association

Persatuan Pengusaha Kayu dan Perabot Bumiputera Malaysia

Pertubuhan Akitek Malaysia

Public Works Department

Sarawak Timber Industry Development Corporation

SIRIM Berhad

Timber Exporters Association of Malaysia

Universiti Putra Malaysia

Committee representation *(continued)*

The Working Group on Visual Strength Grading of Tropical Hardwood Timber which developed this Malaysian Standard consists of the following organisations:

Construction Industry Development Board Malaysia

Forestry Department of Peninsular Malaysia

Forest Research Institute Malaysia

Malaysian Timber Industry Board (Secretariat)

Malaysian Wood Industries Association

Malaysian Wood Preserving Association

Public Works Department

Sabah Timber Industries Association

Sarawak Timber Industry Development Corporation

Sarawak Timber Association

Universiti Malaya

Universiti Putra Malaysia

FOREWORD

This Malaysian Standard was developed by the Working Group on Visual Strength Grading of Tropical Hardwood, supervised by the Technical Committee on Timber and Timber Products under the authority of the Building and Civil Engineering Industry Standards Committee. Development of this standard was carried out by the Malaysian Timber Industry Board (MTIB) which is the Standards-Writing Organisation (SWO) appointed by SIRIM Berhad to develop standards for the timber industry.

This is a new Malaysian Standard that supersedes Section J (Stress grading) of the 'Malaysian grading rules for sawn hardwood timber (1984)', which was intended for scantlings used as structural members in the timber construction that have been designed by engineering calculations. In addition, HS (Hardwood Structural) grade has been incorporated in this standard to cater for the need of users of Malaysian hardwoods, primarily for use in structural glue-lamination, the grade stresses of which are given in MS 544: Part 3:2001, 'Permissible stress design of glued laminated timber'. The grading of HS grade timber also complies with EN 518, 'Structural timber grading - Requirements for visual strength grading standards'.

A number of characteristics of Malaysian hardwoods which may be considered as defects from an appearance grading point of view, such as stains not associated with decay, and pin holes, can be accommodated in structural materials with little or no less in strength. However, certain characteristics such as slope of grain, requires care as this strongly influences strength. Consequently, specific rules for structural grading are desirable for efficient use.

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