RULES FOR THE CONSTRUCTION CLASSIFICATION OF BUILDINGS

DEFINITIONS

BRICKWORK

Solid bricks of burnt clay, concrete (as defined below) or sand lime laid in mortar and/or cement and properly bonded.

MASONRY

Stone laid in mortar and/or cement and properly bonded.

CONCRETE

A mixture composed of Portland or high alumina cement and fine and coarse aggregates of sand, broken brick, crushed natural stone, blast furnace slag, foamed slag, pumice, well burnt clinker or other similar hard and burnt material or gravel.

EXTERNAL WALL

The exterior walls of a building not being a common wall separating one building from any adjoining building.

PARTY OR FIREBREAK WALL

A solid wall without cavity and not less than 200mm (8 in) thick constructed of brickwork, masonry or reinforced concrete going up to the underside of the decking of the roof and carried through the decking and above the upper surface of the covering of the roof to a distance of not less than 375mm (15 in).

All structural metalwork in firebreak walls must be completely encased in one of the following forms of protection:

(a) brickwork not less than 115mm (4 $^{1}/_{2}$ in) thick with the web-hollows filled with concrete and/or brick and mortar.

(b) concrete not less than 63mm (2 $^{1}/_{2}$ in) thick reinforced centrally with steel mesh or wire.

(c) beamed slag block not less than 100mm (4 in) thick and with wire reinforcements in every horizontal joint.

A firebreak wall must be imperforate with the exception that one or more of the following are allowed:

(a) a communication through an approved fire-proof lobby.

(b) an opening protected:

  (i) by approved double fire-proof doors or

  (ii) by an approved single fire-proof door when the opening is between buildings protected by an approved automatic sprinkler installation or installations.

(c) the passage of steel trunking not exceeding 0.4m^2 (4 sq. ft.) in cross-sectional area fitted with a steel damper not less than 6mm ($^1/_4$ in) thick on each side of the opening. Any space between the trunking and the wall to be made good with concrete the full thickness of the wall.

(d) the passage of pipes (but not flue pipes) of non-combustible materials or shafting not exceeding 150mm (6 in) diameter. The space around such pipes to be made good with concrete the full thickness of the wall and holes for shafting to be as small as is practicable.

Pipes carrying water or steam may exceed 150mm (6 in) in diameter.

FLOOR

Any horizontal platform forming the surface of any storey excluding extensions, galleries and mezzanine floor.

ROOF

A roof comprises any framework, decking, insulation and external covering to such decking but excludes any lining as defined.

LINING

Any non-structural material applied or attached to walls or roofs with or without an intervening airspace.

NB: An internal coating of bitumen, tar, pitch or other similar material applied to metal sheeting in the course of its fabrication is to be regarded as structural.

AUTHORIZED BODY

Refers to the Fire Services Department of Malaysia or any recognized national and international body or organization dealing with testing of building materials for fire standards and include the Standards and Industrial Research Institute of Malaysia (SIRIM), the Underwriters Laboratory (UL) and Fire Institute of Research and Testing Organization (FIRTO).

GENERAL PROVISIONS

1. The construction of Buildings is classified into four(4) classes:-

a) Class 1A Construction

b) Class 1B Construction

c) Class 2 Construction

d) Class 3 Construction

CLASS 1A CONSTRUCTION

1. **WALLS**

External walls up to the eaves level (excluding windows and doors) to be of:

(a) brickwork,masonry,concrete,reinforced concrete,autoclaved aerated concrete, hollow blocks, solid blocks and/or slabs not less than 100mm (4 in) thick and/or

(b) any other materials having at least 2-hours fire resistance as certified by an AUTHORIZED Body.

2. **FLOORS**

To be constructed of reinforced concrete.

3. **ROOFS**

The external covering to be entirely of non-combustible materials.

Note: Except for dwelling risks, Class 1A building with open-sided sheds attached to it and with floor area less than 20% of total floor area of main building to be rated as Class 1A with 10% loading on basic premium. If the floor area of open-sided sheds exceeds 20% of total floor area of main building, such building is to be rated as Class 1B.

CLASS 1B CONSTRUCTION

1. **WALLS**

External walls up to eaves level (excluding windows and doors) to be :

(a) partly of brickwork, masonry, concrete, reinforced concrete, autoclaved aerated concrete, hollow blocks, solid blocks and/or slabs not less than 100mm (4 in) thick and partly of non-combustible materials and/or

(b) wholly of glass certified by an AUTHORISED Body for building use.

2. **ROOFS**

The external covering to be entirely of non-combustible materials.

Note : (i) Except for dwelling risks, Class 1B building with open-sided sheds attached to it and with floor area less than 20% of total floor area of main building to be rated as Class 1B with 10% loading on basic premium. If the floor area of open-sided sheds exceeded 20% of total floor area of main building, such building is to be rated as Class 2.

(ii) To conform with this construction classification :

(a) Building constructed partly of ventilated bricks and partly of incombustible materials, the usage of ventilated bricks must not exceed 20% of the total wall area. If such usage exceeds 20% of the total wall area, the building is to be classified as Class 2.

(b) Building with rows of glass lourve windows and/or wire-mesh and/or openings, including ventilated bricks, the usage of glass lourve windows, wire-mesh, openings and ventilated bricks combine must not exceed 20% of the total wall area. If such usage exceeds 20% of the total wall area, the building is to be classified as Class 2.

(c) The usage of non-combustible materials (other than bricks) must not exceed 80% of the total wall area. If such usage exceeds 80% of the total wall area, the building is to be classified as Class 2.

CLASS 2 CONSTRUCTION

1. **WALLS**

External walls:

(a) partly of brick, masonry, concrete, reinforced concrete, autoclaved aerated concrete, hollow block, solid block, slabs or any other materials having at least the same fire resistance as certified by an AUTHORIZED Body or classified in the Building Bye-Laws and partly of wood or other combustible materials.

NB: To conform with this construction classification, the usage of wood or other combustible materials must not exceed 50% of the total wall area.

(b) of asbestos sheeting, corrugated iron, galvanized iron or other non-combustible materials.

2. (a) Open-sided sheds with non-combustible columns.

(b) Open-sided sheds with wall(s) constructed of non-combustible materials and with non-combustible columns.

3. **ROOFS**

The external covering to be entirely of non-combustible materials.

CLASS 3 CONSTRUCTION

All other construction not conforming with Class 1A, Class 1B and Class 2 Construction.

BELIAN SHINGLES

Buildings conforming to Class 1A, Class 1B or Class 2 definition but with roofs of belian shingles are to be rated as Class 1A, Class 1B or Class 2 construction as the case may be subject to an additional charge of 0.035% on the trade/occupation rate which is applicable.