

**SINGAPORE CIVIL DEFENCE FORCE
FIRE SAFETY & SHELTER BUREAU**



Civil Defence Complex 91 Ubi Ave 4 Singapore 408827 Fax : 8481488
Website : <http://www.scdf.gov.sg>

Please quote our ref. no. in all future correspondences

Our Ref: CD/FSSB/12/01/03/02

DID: 8481409

FAX: 8481493

25th Jan 2002

Registrar, Board of Architects (BOA)
Registrar, Professional Engineers Board (PEB)
President, Singapore Institute of Architects (SIA)
President, Institution of Engineers, Singapore (IES)
President, Association of Consulting Engineers, Singapore (ACES)

Dear Sirs

**THE USE OF COMBUSTIBLE MATERIALS FOR INTERNAL
PARTITIONS AND CEILING, ROOF COVERING, AND
WALL/CEILING FINISHES.**

Presently, the Fire Code allows for the finishes to walls and ceilings to be of a flame rating not lower than class '3' in a building protected with an approved automatic sprinkler system in accordance with Chapter 6, subject to control on surface areas of the finishes.

Recently, a review has been carried out to consider allowing a more liberal use of finishing and construction materials for walls, ceiling and roof coverings. With the proven effectiveness of the sprinkler system in preventing fire spread in buildings, FSSB has decided that the requirement of non-combustible construction of internal walls, ceilings and roof coverings and finishes to walls and ceilings can be relaxed.

With immediate effect, there shall be no control on finishes to walls and ceilings construction and roof coverings as well as the finishes to walls and ceilings of sprinkler protected areas, except for the following occupancies:

- a. Health-care facilities, including hospitals, nursing homes for handicapped, disabled, aged or persons with mental and/or mobility impairments.
- b. Detention facilities.

Please see attached Annexes A to E for details of the revised requirements.



A PROUD MEMBER OF THE HOME TEAM

**SINGAPORE CIVIL DEFENCE FORCE
FIRE SAFETY & SHELTER BUREAU**



Civil Defence Complex 91 Ubi Ave 4 Singapore 408827 Fax : 8481488
Website : <http://www.scdf.gov.sg>

Please quote our ref. no . in all future correspondences

In addition, the use of flame retardant chemicals will be permitted, subject to the following condition:

- a. The chemical treatment process is part and parcel of the manufacturing process to produce the finished product.
- b. For timber construction, the flame retardant treatment is by pressure impregnation in accordance with SS CP:1 – Use of Timber in Building Construction
- c. For finishing materials, the means/methods of flame retardant treatment shall conform to the manufacture's specification in accordance to the prototype.
- d. The chemically treated materials/finished products shall be listed under the PSB Product Listing Scheme.

Please convey the contents of this circular to members of your Institution/Association/Board. You may reprint or photocopy the relevant pages incorporating the changes/amendments to the Fire Code at Annex F for dissemination to your members. The circular is also available in our website : <http://www.scdf.gov.sg>.

For any inquiry or clarification, please contact Mr Chan Hong Meng at Tel: 8481454.

Yours faithfully

Teo Lim Teck
Secretary, FSSB Standing Committee
for Commissioner
Singapore Civil Defence Force



A PROUD MEMBER OF THE HOME TEAM

**SINGAPORE CIVIL DEFENCE FORCE
FIRE SAFETY & SHELTER BUREAU**



Civil Defence Complex 91 Ubi Ave 4 Singapore 408827 Fax : 8481488
Website : <http://www.scdf.gov.sg>

Please quote our ref. no . in all future correspondences

cc

CEO, BCA

All members of FSSB Standing Committee

All members of Fire Code Review Committee

President, REDAS

President, IFE

President, SISV

CEO, HDB

Group President, PSA

CEO, JTC

CE, LTA (Attn: Mr Mohinder Singh)

CE, PSB Corp. (Attn: Mr Lau Keong Ong/Ms Tan Chiew Wan)



A PROUD MEMBER OF THE HOME TEAM

MATERIALS FOR WALL CONSTRUCTION

Annex - A

	Non-sprinkler protected building	Sprinkler protected building
Wall enclosing protected staircase/exit passageway	1. Non-combustible (excluding limited combustibility) with the requisite fire resistance rating.	1. Non-combustible (excluding limited combustibility) with the requisite fire resistance rating.
Internal non-loadbearing wall (homogenous construction)	1. Walls, when tested in accordance with BS 476 Pt 6*, shall have an index of performance not exceeding 12 and a sub-index not exceeding 6.	1. Wall construction can be made of any materials, except plastic, in either homogenous or composite construction, but subject to control for specified uses as stated under item 2 below. 2. For health-care** and detention facilities, surface of wall shall have a surface spread of flame rating not lower than class '3'*
Circulation spaces, e.g. common corridor, passageway, etc.	1. Non-combustible (including limited combustibility).	3. Wall construction can be made of any material, except plastic, in either homogenous or composite construction, but subject to control for specified uses as stated in item 2 above.
* : The test shall be conducted with air gap.		
** : Includes hospitals, old aged homes, nursing homes, health-care for mentally or physically disabled patients, etc.		

MATERIALS FOR CEILING CONSTRUCTION

Annex -B

	Non-sprinkler protected building	Sprinkler protected building
Ceiling within protected staircase/exit passageway	<p>1. Non-combustible (excluding limited combustibility) and have the requisite fire resistance rating, if required.</p>	<p>1. Non-combustible (excluding limited combustibility), and have the requisite fire resistance rating, if required.</p>
Ceiling (homogenous construction) within room/compartment	<p>1. Ceilings, when tested in accordance with BS 476 Pt 6*, shall have an index of performance not exceeding 12 and sub-index not exceeding 6.</p>	<p>1. Ceiling construction can be made of any material, except plastic, in either homogenous or composite construction, but subject to control for specified uses as stated under item 2 below.</p> <p>2. For health-care** and detention facilities, surface of ceiling shall have a surface spread of flame rating not lower than class '3'*</p>
Circulation spaces, e.g. common corridor, passageway, etc.	<p>1. Non-combustible (including limited combustibility).</p>	<p>1. Ceiling construction can be made of any material, except plastic, in either homogenous or composite construction, subject to control for specified uses as stated in item 2 above.</p>
<p>*: The test shall be conducted with air gap. **: Includes hospitals, old aged homes, nursing homes, health-care for mentally or physically disabled patients, etc.</p>		

FINISHING MATERIALS FOR WALL

Annex -C

	Non-sprinkler protected building	Sprinkler protected building
Protected staircase and/or exit passageway	1. Non-combustible	1. Finishes shall have a surface spread of flame rating not lower than class '0'.
Fire fighting and/or smoke-stop lobby	1. Finishes shall have a surface spread of flame rating not lower than class '0'.	1. Finishes shall have a surface spread of flame rating not lower than class '2'.
Within building/compartment	<ol style="list-style-type: none"> 1. Finishes shall have a surface spread of flame rating not lower than class '1' for Group III to VIII buildings. Finishes may be of two classes lower, e.g. class '3', subject to area of finishes not exceeding that specified under Cl. 3.13.5 (a). 2. No control on the use of finishes, except plastic, for Group I & II buildings. 3. No control on surface spread of flame rating for finishes, except plastic, if thickness is not more than 1.0mm. 	<ol style="list-style-type: none"> 1. No control on the surface spread of flame rating for finishes except in specified buildings as stated under item 2 below. 2. For health-care* and detention facilities, finishes shall have a surface spread of flame rating not lower than class '3'. No control on surface spread of flame rating for finishes, except plastic, not more than 1.0mm thickness.
circulation space	<ol style="list-style-type: none"> 1. Finishes shall have surface spread of flame rating not lower than class '0'. 2. No control on surface spread of flame rating for finishes, except plastic, if thickness is not more than 1.0mm. 	1. No control on the surface spread of flame rating of finishes except in specified buildings as stated in item 2 above.
*: Includes hospitals, old aged homes, nursing homes, health-care for mentally or physically disabled patients, etc.		

FINISHING MATERIALS FOR CEILING

Annex -D

	Non-sprinkler protected building	Sprinkler protected building
Protected staircase, exit passageway	1. Non-combustible	1. Finish to ceiling shall have a surface spread of flame rating not lower than class '0'.
Protected lobby	1. Finishes shall have a surface spread of flame rating not lower than class '0'.	1. Finishes shall have a surface spread of flame rating not lower than class '2'.
Within building or compartment	<ol style="list-style-type: none"> 1. Finishes shall have surface spread of flame rating not lower than class '1' for Group III to VIII buildings. Finishes may be of two classes lower subject to not lower than class '3' and area of finishes complied with Cl. 3.13.5 (b) for Group III to VIII buildings. 2. No control on the use of finishes, except plastic, for Group I & II buildings. 3. No control on surface spread of flame rating for finishes, except plastic, if thickness is not more than 1.0mm. 	<ol style="list-style-type: none"> 1. No control on the surface spread of flame rating for finishes except in specified uses as stated under item (2) below. 2. For health-care* and detention facilities, finishes shall have a surface spread of flame rating not lower than class '3'. No control on the surface spread of flame rating for finishes not more than 1.0mm thickness.
Circulation spaces	<ol style="list-style-type: none"> 1. Finishes shall have surface spread of flame rating not lower than class '0'. 2. No control on surface spread of flame rating for finishes, except plastic, if thickness is not more than 1.0mm. 	1. No control on the surface spread of flame rating of finishes except in specified uses as stated in item 2 above.
*: Includes hospital, old aged homes, nursing homes, health-care for mentally or physically disabled patients.		

ROOF COVERING MATERIALS

Annex - E

	Non-sprinkler protected building	Sprinkler protected building (including the void below roof)
Group I & II buildings	No control, except for plastic materials.	No control, except for plastic materials.
Group III, IV, V and VII buildings	1. Surface of roof covering shall have a surface spread of flame rating not lower than class '1'*. 	1. Roof covering can be made of any materials, except plastic in either homogenous or composite construction, but subject to control for specified uses as stated under item (2) below. 2. For health-care** and detention facilities, surface of the roof covering shall have a surface spread of flame rating not lower than class '3'*.
Group VI and VIII buildings	1. Material for roof covering shall have surface spread of flame rating not lower than class '1'*. 	1. Roof covering can be made of any materials, except plastic in either homogenous or composite construction.
* : The test shall be conducted with air gap.		
** : Includes hospitals, old aged homes, nursing homes, health-care for mentally or physically disabled patients.		

To be implemented with effect from 25th Jan 2002

**AMENDED UNDER SUPPLEMENT 3/2002 DATED 25TH JAN 2002 ON
CHANGES / AMENDMENTS TO FIRE CODE 1997**

CONTENTS

<u>Chapter 3</u>	<u>Clause</u>	<u>Page</u>
	3.11.11 (c)	118
	3.13.4	121 & 122
	3.13.6	123
	3.14.1	124
	3.15.1(c)	125
	3.15.6	126
	3.15.11	126
	3.15.12	126
	3.15.14	126
	Table 3.13A	136
	Table 3.13B	136-A

- (ii) if the concealed space exceeds 400 mm and does not exceed 800 mm in depth and no combustible material is used within the concealed space, (where the combustible content is small in quantity, the Relevant Authority, may, at its discretion, rule that such combustible content may be irrelevant in relation to this sub-clause), or
 - (iii) if the concealed space is fitted with an automatic sprinkler system which complies with the requirements of Chapter 6.
- (f) In the case of other buildings, if the concealed space does not exceed 800 mm in depth.

3.11.10	Where the concealed space of suspended ceiling is fitted with an automatic sprinkler system which complies with the requirements in Chapter 6,	Exemption of cavity barriers in ceiling space
	<ul style="list-style-type: none"> (a) The concealed space may be exempted from provision of cavity barriers, and (b) Combustible materials and materials with other than Class 0 flame spread may be used for the supporting elements and exposed surfaces of materials within the concealed space, provided the ceiling is not situated over an exit passageway, smoke-stop lobby or other designated means of escape facilities. 	
3.11.11	The concealed spaces of suspended ceiling over an exit passageway, smoke-stop lobby, exit staircase or other designated means of escape facilities, shall comply with the following:	Suspended ceiling over protected areas
	<ul style="list-style-type: none"> (a) the ceiling supporting elements and the ceiling shall be constructed of non-combustible materials; and (b) the exposed surfaces within the concealed space shall be of Class 0 surface flame spread. (c) Where sprinkler system is installed within the concealed spaces at smoke stop/fire fighting lobby, the ceiling supporting elements and its exposed surface may have a surface spread of flame not lower than class 2. 	New sub-clause added Supplement 3/2002 dated 25 Jan 2002 (Effective date: 25/1/02)

- * Class 3 - Surface of Medium Flame Spread. Those surfaces on which during the first 1-1/2 minutes of test, the mean spread of flame is not more than 375 mm and during the first 10 minutes of test is not more than 825 mm under the relevant test conditions.
- * Class 4 - Surface of Rapid Flame Spread. Those surfaces on which during the first 1-1/2 minutes of test the mean spread of flame is more than 375 mm and during the first 10 minutes of test is more than 825 mm under the relevant conditions.

3.13.4	<p>The surface of a wall or ceiling in a room / space shall be of a class not lower than specified as relevant in the Table 3.13A, provided that :</p> <p>(a) Where an automatic sprinkler system is fitted throughout in the building in compliance with the requirements in Chapter 6, there is no control on the surface of flame rating in room / space, except for the following occupancies / usage:</p> <ul style="list-style-type: none"> (i) Health care facilities, including hospital, nursing home for handicapped, disabled, aged or persons with mental and / or mobility impairments. (ii) Detention facilities. (iii) Exit staircase, exit passageway and smoke-stop / fire fighting lobbies. <p>(b) .</p> <p>Where a building is not protected by automatic sprinkler system, surfaces of the walls and ceilings may be of a surface class not lower than class 3 to the extent permitted by Cl 3.13.5 (a) and Cl 3.13.5 (b) respectively.</p>	<p>Class of flame spread to be not lower than specified</p>
		<p>Amended under Supplement 3/2002 dated 25th Jan 2002 (Effective date : 25/1/02)</p>

- (c) If timber is used as the surface material for the walls along the side gangways of the auditorium which is not sprinkler protected, the requirements of this regulation pertaining to the requisite class of flame spread may be relaxed only in respect of those parts of such wall surfaces provided the aggregate area of such parts does not exceed 50 percent of the whole surface area of the side walls of the auditorium.
- 3.13.5 (a) any part of the surface of a wall in a room or compartment may be of any class not lower than Class 3 if the area of that part (or if there are two or more such parts, the total area of those parts) does not exceed the following -
- (i) in the case of a building or compartment of purpose group I, II or III, 20 m² , or
- (ii) in any other case, 60 m².
- (b) Any part of the surface of a ceiling may be of any class not lower than Class 3 if that part of the surface is the face of a layer of material the other face of which is exposed to the external air (skylight included) and -
- (i) * the ceiling is that of a room in a building or compartment of Purpose Group II, III, IV, V or VII or that of a circulation space excluding smoke-stop lobby, exit staircase and exit passageway in a building or compartment of any purpose group, and
- * the area of that part does not exceed 2.5 m², and
- * the distance between that part and any other such part is not less than 3.5 m, or

**Amended
under
Supplement
3/2002 dated
25th Jan 2002
(Effective
date :
25/1/02)**

Where class
of flame
spread may be
of any
class not
lower than
class 3

- (ii) * the ceiling is that of a room in a building or compartment of Purpose Group VI or VIII, and
 - * the area of that part does not exceed 5.0 m², and
 - * the distance between that part and any other such part is not less than 1.8 m, and
 - * that part and all other such parts are evenly distributed over the whole area of the ceiling and together have an area which does not exceed 20% of the floor area of the room, or
- (iii) the ceiling is that of a balcony, verandah, open carport, covered way or loading bay which (irrespective of its floor area) has at least one of its longer sides wholly and permanently open, or
- (iv) the ceiling is that of a garage or outbuilding which (irrespective of whether it forms part of a building or is a building which is attached to another building or wholly detached) has floor area not exceeding 40 m².

3.13.6 Wall and ceiling finishes in the form of thin sheet of not more than 1.0 mm thickness mounted on a non-combustible substrate will not be subject to the requirement of surface spread of flame provisions provided that this exception shall not apply to smoke-stop / fire fighting lobbies, exit staircases and passageways.

Exception
Amended
under
Supplement
3/2002 dated
25th Jan 2002
(Effective
date: 25/1/02)

3.14

ROOFS

3.14.1	Surface of materials for roof covering and roof construction shall have a surface spread of flame rating not lower than class 1, except in the case of purpose groups I and II, and in buildings that are protected throughout with automatic sprinkler system in compliance with Chapter 6.	Roof construction Amended under Supplement 3/2002 dated 25th Jan 2002 (Effective date: 25/1/02)
3.14.2	<p>The Relevant Authority may consent to the use of combustible material for roof construction for buildings of purpose groups III, IV, V and VII, which satisfy the following requirements :</p> <p>(a) Building does not exceed four storeys, and</p> <p>(b) Roof space between the roof and the ceiling shall be sub-divided by cavity barriers where required to comply with the relevant provisions of Cl. 3.11, and openings in cavity barriers shall be fire-stopped to comply with the requirements of Cl. 3.12, and</p> <p>(c) If the underside of the roof serves as the ceiling to a room or space, the elements of the underside of the roof shall comply with the relevant provisions of Cl. 3.13 for restriction of spread of flame.</p>	<p>Provision for buildings not exceeding</p> <p>four storeys</p>
3.14.3	At the junctions with separating wall or compartment wall, roof construction shall comply with the relevant requirements under Cl. 3.6.3 and Cl. 3.7.4 respectively.	Roof junction with separating wall and compartment wall
3.14.4	Roof terrace shall not be roofed over. If it is either partially or fully roofed over, it shall be considered as a habitable floor.	Roof terrace

3.15

MATERIALS FOR CONSTRUCTION

- 3.15.1 (a) Materials used in the construction of building elements shall comply with the provisions stated under this section in addition to the performance requirements such as for fire resistance and limit to spread of flame as stipulated in other relevant sections of the code.
- (b) Intumescent paints is allowed to be used for protection of structural steel members of all buildings, except purpose group VI and VIII, to achieve the required fire resistance, provided:
- (i) the paint shall be of a proprietary system that has been demonstrated to achieve the fire resistance performance as required in BS 476 Part 20/21 or its equivalent, together with the specified weathering tests as specified in the BS 8202: Part 2-1992;
 - (ii) they shall be used to protect structural beams only, excluding load transfer beams, if the habitable height of the building exceeds 24m
 - (iii) coating of intumescent paint onto structural steel, and subsequent maintenance shall conform to BS 8202: Part 2:1992; and
 - (iv) all requirement stipulated in the Appendix to this clause: “Notes on the use of Intumescent Paints for Protection to Structural Steel Member of Buildings” shall be complied with.
- (c) Flame retardant chemicals are permitted to be used for upgrading of fire resistance rating or surface spread of flame of timber or any combustible materials, subject to the following:
- (i) The chemical treatment process is part and parcel of the manufacturing process to produce the finished product ;
 - (ii) The chemical treatment is by means of pressure impregnation conforming to SS CP: 1 – Use of Timber in Building Construction , or the manufacturer’s specification in accordance to the prototype test, for timber and other combustible materials respectively.
 - (iii) The treated materials/products have been subjected to fire test as required under Cl 3.4.1 or Cl 3.13.1
- 3.15.2 All elements of structure shall be constructed of non-combustible materials in addition to the relevant provisions as follows:
- Cl.3.3 for fire resistance of elements of structure,
 Cl.3.5.1, 3.5.2 & 3.5.4 for External Walls,
 Cl.3.6.1(c)/(d) & 3.6.5 for Separating Walls,
 Cl.3.7.1(c)/(d), 3.7.5 & 3.7.6 for Compartment Walls and Compartment Floors,
 Cl.3.8.2(c), 3.8.4, 3.8.7(c), 3.8.8(b), 3.8.8(e) and 3.8.9(a) for Protected Shafts.

Intumescent
Paints.

Amended under
Supplement
1/2002 d/d 10.
Jan 2002

**Amended under
Supplement
3/2002 dated
25th Jan 2002
(Effective date:
25/1/02)**

3.15.6	Materials used for construction of ceiling and its supports shall comply with Table 3.13B, except for supports that are required to comply with Cl 3.11.9 (b).	Amended under Supplement 3/2002 dated 25 th Jan 2002 (Effective date: 25/1/02)
3.15.7	Construction of ceilings and ceiling support located within sprinkler protected building shall comply with the provision of cl.3.11.10(b).	
3.15.8	Materials used for fire stopping shall comply with the relevant provisions of cl.3.12.2 and 3.12.3.	
3.15.9	Materials used on the surfaces of walls and ceilings are required to meet the requirements for restriction of spread of flame and to comply with the performance requirements as stipulated under cl.3.13.	
3.15.10	Materials used for roof construction shall comply with the provisions of cl.3.14.1 & 3.14.2.	
3.15.11	Internal non-load bearing walls in buildings shall comply with Table 3.13B and the materials for surface finishes of internal non-load bearing walls shall not be treated as part of the wall and shall comply with the relevant provisions of Cl 3.13.	Amended under Supplement 3/2002 dated 25 th Jan 2002 (Effective date: 25/1/02)
3.15.12	<p>(a) Composite panels which consist of plastic core shall not be used either for the construction of internal non-load bearing walls, ceilings, external walls or as cladding to external walls of all buildings unless prior approval has been obtained from the Relevant Authority.</p> <p>(b) Materials with surface flame spread rating of not lower than Class 2 shall be permitted to be used for the construction of partition for toilet cubicles only.</p>	<p>Amended under Supplement 3/2002 dated 25th Jan 2002 (Effective date: 25/1/02)</p> <p>Amended under Supplement 2/2002 date Jan 18th Jan 2002 (Effective date : 18th Jan 2002)</p>
3.15.13	<p>In buildings which are protected by an automatic sprinkler system, fire rated glass can be used for the construction of enclosures to smoke stop and fire fighting lobbies, subject to the following:</p> <p>(a) The walls and doors shall have the necessary fire resistance, including insulation, when subject to test under BS 476: Part 20-23; and</p> <p>(b) The walls and doors shall meet the class A of the Impact Performance requirements when subject to test under BS 6206 or AS 2208</p>	<p>New clause added under Supplement 2/2002 dated 18th Jan 2002 (Effective date: 18th Jan 2002)</p>
3.15.14	Internal non-load bearing walls, ceilings and finishes shall not contain any plastic material.	New clause added under Supplement 3/2002 dated 25 th Jan 2002 (Effective date : 25/1/02)

TABLE 3.13A

Purpose group of building	Classification of finishes to walls and ceiling relating to flame spread							
	Non-sprinkler protected building				Sprinkler protected building			
	Room, compartment	Circulation space	Smoke-stop /fire fighting lobby	Exit staircase & exit passageway	Room, compartment	Circulation space	Smoke-stop/fire fighting lobby	Exit staircase & exit passageway
I (Small residential)	No control	0	0	N	No control	No control	2	0
II (Other residential)	No control	0	0	N	No control	No control	2	0
III (Institutional)	1	0	0	N	3*	3*	2	0
IV (Office)	1	0	0	N	No control	No control	2	0
V (Shop)	1	0	0	N	No control	No control	2	0
VI (Factory)	1	0	0	N	No control	No control	2	0
VII (Place of public resort)	1	0	0	N	No control	No control	2	0
VIII (Storage)	1	0	0	N	No control	No control	2	0

Amended under Supplement 3/2002 dated 25th Jan 2002 (Effective date: 25/1/02)

N Non-combustible to comply with BS 476 Pt 4.

3* Applies to Detention facilities and Health-care, including hospital, old-aged homes, nursing homes for mentally or physically disabled patients.

TABLE 3.13B

Purpose group of building	Material construction (Homogenous)*						New table inserted under Supplement 3/2002 dated 25 th Jan 2002 (Effective date : 25/1/02)
	Non-sprinkler protected building			Sprinkler protected building			
	Internal non-bearing wall ceiling within room, compartment	Circulation spaces, e.g. common corridor, passageway, etc	Roof covering, including supports	Internal non-bearing wall ceiling within room, compartment	Circulation spaces, e.g. common corridor, passageway, etc	Roof covering, including supports	
I (Small residential)	No control	N	1	No control	No control	No control	No control
II (Other residential)	No control	N	1	No control	No control	No control	No control
III (Institutional)	0	N	1	3**	3**	3**	3**
IV (Office)	0	N	1	No control	No control	No control	No control
V (Shop)	0	N	1	No control	No control	No control	No control
VI (Factory)	0	N	1	No control	No control	No control	No control
VII (Place of public resort)	0	N	1	No control	No control	No control	No control
VIII (Storage)	0	N	1	No control	No control	No control	No control

* Refer to the entire construction of the element.

0/1/3 The tests of BS 476 Pt 6 and/or Pt 7 shall be conducted with air gap.

** Applies to Detention facilities and health-care, including hospital, nursing homes for handicapped, disabled, aged or persons with mental and/or mobility impairment.

N Non-combustible, including limited combustibility.