

Your Ref: CD/FSSD/12/02/03/01

**Date** : 6 Feb 2017

Registrar, Board of Architects

Registrar, Professional Engineers Board President, Singapore Institute of Architects President, Institution of Engineers, Singapore

President, Association of Consulting Engineers, Singapore

Dear Sir/Mdm,

# FIRE SAFETY GUIDELINES (2017) FOR CERTIFICATION OF REGULATED FIRE SAFETY PRODUCTS/MATERIALS

The above fire safety guidelines are issued to align with the recent changes made to the ISO/IEC 17065 (Comformity assessment – Requirements for bodies certifying products, processes and services) accreditation requirements and to address feedback received from industry stakeholders.

- 2. The list of regulated fire safety products/materials, its required test standards and surveillance regime are also updated and given in <u>Annex A</u> of the fire safety guidelines. It is also available in SCDF website at http://:www.scdf.gov.sq.
- 3. With effect from 6 Feb 2017, all Certification Bodies (CB)s shall comply with the latest fire safety guidelines.
- 4. Please convey contents of this circular to members of your Institution/Association/Board. The circular is also available in CORENET-e-Info: http://www.corenet.gov.sg/einfo.
- 5. For clarification, please contact Mr Pang Tong Teck at Tel: +65 6848 1403 or E-mail: Pang\_Tong\_Teck@scdf.gov.sg.













Yours faithfully, (transmitted via e-mail) Maj Tan Chung Yee Secretary, SCDF Fire Safety Standing Committee for Commissioner Singapore Civil Defence Force

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# FIRE SAFETY AND SHELTER DEPARTMENT SINGAPORE CIVIL DEFENCE FORCE

# FIRE SAFETY GUIDELINES

FSG 1:2017

# CERTIFICATION OF REGULATED FIRE SAFETY PRODUCTS & MATERIALS (2017)

**Effective Date: 6 Feb 2017** 

Released by:

**Fire Safety & Shelter Department** 

# CERTIFICATION OF REGULATED FIRE SAFETY PRODUCTS & MATERIALS (2017)

#### **SCOPE**

- 1 The fire safety guidelines include the following:
  - a Accreditation requirements for Certification Bodies (CBs) offering services in Singapore,
  - b List of fire safety products/materials regulated by SCDF,
  - c Acceptable test standards, product certification requirements and surveillance regime for regulated fire safety products/materials.

### **ACCREDITATION REQUIREMENTS**

- All CBs offering services in Singapore to certify regulated fire safety products/materials shall be accredited by Singapore Accreditation Council (SAC) and shall comply with the requirements stipulated in ISO/IEC 17065 (Comformity assessment Requirements for bodies certifying products, processes and services).
- All overseas CBs shall have their local offices and representatives in Singapore to follow up on queries/complaints and monitor the products/materials certified by them.
- 4 CBs participating in the Product Listing Scheme (PLS) shall inform SCDF officially of its intention and submit to SCDF its Certificate of Accreditation and Schedule issued by SAC for record. In addition, SCDF may request for additional information or impose other requirements on the CBs.

### **CERTIFICATION REQUIREMENTS**

The list of regulated fire safety products/materials and required surveillance regime are given in <u>Annex A</u>. Certification of these regulated fire safety products shall comply with the requirements stipulated in ISO/IEC 17067 (Conformity Assessment - Fundamentals of product certification and guidelines for product certification schemes) and shall be based on the following certification schemes:

### a ISO/IEC Type 1b Certification Scheme<sup>1</sup>

ISO/IEC Type 1b Certification Scheme consists of type testing of a sample of a production and subsequent batch inspection. Regulated fire safety products certified under ISO/IEC Type 1b Certification Scheme are issued with product labels which are also displayed on the products.

## b **ISO/IEC Type 2 Certification Scheme<sup>2</sup>**

ISO/IEC Type 2 Certification Scheme consists of type testing of a sample and market surveillance. Market surveillance is conducted and samples of the product from the market are assessed for ongoing conformity.

# c ISO/IEC Type 5 Certification Scheme<sup>3</sup>

ISO/IEC Type 5 Certification Scheme consists of testing and assessment of the quality system involved. Surveillance of the quality system is conducted and samples of the product from either the market or at the point of production, or both, are assessed for ongoing conformity. Regulated fire safety products certified under ISO/IEC Type 5 Certification Scheme (Discrete System) are issued with product labels which are also displayed on the products.

# ASSESSMENT OF MODIFICATION TO CERTIFIED FIRE SAFETY PRODUCTS/MATERIALS

The fire safety products/materials shall be installed in the manner as the tested prototype described in the test report. Any modifications or deviations to the tested prototype shall be supported by a report prepared by a local or an oversea test laboratory accredited or recognised by SAC.

<sup>&</sup>lt;sup>1</sup> All items except item 1b, item 30 to item 36, item 41 and item 42 of the list of regulated fire safety products/materials given in Annex A could be certified under the ISO/IEC Type 1b Certification Scheme.

<sup>&</sup>lt;sup>2</sup> Item 1b, item 30 to item 36, item 41 and item 42 of the list of regulated fire safety products/materials given in Annex A shall be certified under ISO/IEC Type 2 Certification Scheme.

<sup>&</sup>lt;sup>3</sup> All items except item 1b, item 30 to item 36, item 41 and item 42 of the list of regulated fire safety products/materials given in Annex A could be certified under the ISO/IEC Type 5 Certification Scheme.

# PROVISION OF MINIMUM INFORMATION BY CBS ON CERTIFIED FIRE SAFETY PRODUCTS/MATERIALS AND PRODUCTS/MATERIALS WHICH FAILED THE CERTIFICATION REQUIREMENTS

7 CBs shall provide the minimum information as specified in <u>Annex B</u> in their directory for certified fire safety products/materials and products/materials which failed the certification requirements for verification by the public. Such information shall be part of the audit requirements of SAC.

# APPLICANTS OF FIRE SAFETY PRODUCTS SEEKING MULTIPLE CERTIFICATIONS FROM CBS

- An applicant who seeks certification of their fire safety products with a CB shall declare the status of certification he had with the previous CB.
- If the applicant had previously sought certification with a CB but failed in its certification attempt, he is required to submit the latest audit report and surveillance test results prepared by the previous CB to the new CB for their reference and highlight any improvement made to the product to be certified by the new CB.
- However, if the applicant declares that he has yet to seek certification with any CB, it shall be mandatory for the CB that is approached by the applicant to confirm the status from the directory of certified and failure products maintained by the other CBs.
- If the CB subsequently finds out that the applicant had earlier approached a CB but failed in its certification attempt, the CB shall require the applicant to (i) submit the latest audit report and surveillance test results prepared by the previous CB and (ii) highlight any improvement made to the product. If the applicant fails to do so, the CB shall reject the applicant's application for certification of his product.
- 12 Compliance of the procedures by the CBs shall be part of the audit requirements of SAC.

#### VALIDITY OF TEST REPORTS FOR REGULATED FIRE SAFETY PRODUCTS

- 13 Test report(s) shall be valid for 5 years for products listed under ISO/IEC Type 5 Certification Scheme (Discrete system) and ISO/IEC Type 1b Certification Scheme which are issued with product labels.
- Test report(s) shall be valid for 10 years for products listed under ISO/IEC Type 5 Certification Scheme (Non-discrete system) which are issued with Declaration of Compliance (DOC).

# VALIDITY OF CERTIFICATE OF CONFORMITY (COC) FOR REGULATED FIRE SAFETY PRODUCT

15 COC for regulated fire safety product shall be valid for 5 years. Under the PLS, a fire safety product supplier shall obtain a COC for their product before it is used for building construction in Singapore. The issuance of COC for regulated fire safety products listed under the PLS is solely based on compliance of stipulated test performance standard of the product certified in the test report issued by a local or an oversea test laboratory accredited or recognised by SAC.

#### MANAGEMENT OF FIRE SAFETY PRODUCT LABELS

- CBs who issue the fire safety product labels shall maintain a record for periodic audit. Fire safety product labels are controlled and serialized items. Such records shall form part of the audit requirements of SAC to ensure its transparency and accountability.
- 17 The supplier of a regulated fire safety product shall make a police report on the missing product labels before they are replaced with new labels by the CBs.

#### TRACEABILITY OF CERTIFIED PLS LISTED PRODUCTS

- Regulated fire safety products listed under the PLS and certified under ISO/IEC Type 5 Certification Scheme (Discrete System) and ISO/IEC Type 1b Certification Scheme are issued with product labels which are displayed on the products. To enhance accountability, speedy audit process and traceability of regulated fire safety product, the supplier who is the certificate holder of COCs of these categories of regulated products shall also display labels which include their company's name on the certified fire safety products with effect from 6 Feb 2018.
- Both the product labels and company labels displayed on the certified fire safety products shall be water-proof, tampered-proof and capable of preventing forgery of labels.

#### **ANNEX A**

LIST OF REGULATED FIRE SAFETY PRODUCTS & MATERIALS

### ANNEX B

PROVISION OF MINIMUM INFORMATION BY CERTIFICATION BODIES ON CERTIFIED FIRE SAFETY PRODUCTS/MATERIALS AND PRODUCTS/MATERIALS WHICH FAILED THE CERTIFICATION REQUIREMENTS

Product	Acceptable Standards	Product Certification Scheme	Surveillance Regime		
7 700001	/ tooptable standards	Concinc	Testing	Factory/Site Inspection	
1a. Fire Alarm Panel	1.EN 54 Pt 2 and Pt 4 and 2.CP10	Scheme 5 or Scheme 1b (Labels issued)	Scheme 5 - Annually or by trigger (every 200 labels)  Scheme 1b - Batch Testing Critical electrical (freq, voltage) input and output; Verify Design Deviation; Verify Functionality; Verify Visual & Audio Indicators	Scheme 5 - Annually or by trigger (every 200 labels) Scheme 1b - NA	
1b. Home fire alarm (i.e smoke detectors)	1. BS 5446 or EN 14604 or EN 54 or AS 3786 or UL 217	Scheme 2 (No label issued)	Annual surveillance test	NA	
2. Fire Pump	1. AS 2941  or UL448 or FMRC Class 1311 or Class 1319	Scheme 5 (Labels issued)	AS - Annual witness testing; FM/UL/BRE- Annual; Submission of reports shall include surveillance inspection & witness testing.	AS - Annually FM/UL/BRE - 3 yearly	
3. Fire-rated Partition					
Materials are listed u 3.1 Compartment wall	nder BS 476 Pt 4 or BS 476 Pt 11 or EN 13501-  1. BS 476 Pt 22 or EN 1364-1 or AS 1530 Pt 4 or ASTM E119 or ISO 834 or NFPA 251 and		s) under PLS Scheme 2 Site inspection triggered by DOC (every 3500 sqm).	Annually	
	Timber products: See section on cross/glued laminated timber		Annual surveillance test on material under Scheme 2.		
3.2 Protected shaft enclosing lift (2)	1. BS 476 Pt 22 or EN 1364-1 or AS 1530 Pt 4 or ASTM E119 or ISO 834 or NFPA 251 and	Scheme 5 (DOC issued)	Site inspection triggered by DOC (every 3500 sqm).	Annually	
	2. BS 5234 Pt 2 and 3. BS EN 520 (for gypsum plaster board) and 4. ISO 1896 ( for calcium silicate or cement board) and 5. Cyclic loading & dynamic test as specified under clause 3.3 of Building Code of Australia C 1.8		Annual surveillance test on material under Scheme 2.		
	BS 476 Pt 22 or EN 1364-1 or AS 1530 Pt 4 or ASTM E119 or ISO 834 or NFPA 251 and     BS 5234 Pt 2 and     EN 520 (for gypsum plaster board) and     ISO 1896 (for calcium silicate or cement board)	Scheme 5 (DOC issued)	Site inspection triggered by DOC (every 3500 sqm).  Annual surveillance test on material under Scheme 2.	Annually	
4. Fire-rated Floor <sup>(1)</sup> Materials are listed u	<u>1</u> <sup>6)</sup> Inder BS 476 Pt 4 or BS 476 Pt 11 or EN 13501-	1(Min A2 clas	s) under PLS Scheme 2	L	
	1. BS 476 Pt 21 or AS 1530 Pt 4 or ISO 834	Scheme 5 (DOC issued)	Site inspection triggered by DOC (every 3500 sqm).	Annually	
	and 2. Timber products: See section on cross/glued laminated timber		Annual surveillance test on material under Scheme 2.		
5. Fire-rated Ceiling Materials are listed u	(16) Inder BS 476 Pt 4 or BS 476 Pt 11 or EN 13501-	1(Min A2 clas	s) under PLS Scheme 2		
5.1 Compartmentation	1. BS 476 Pt 22 or EN 1364-2 or AS 1530 Pt 4 or ASTM E119 or ISO 834 or NFPA 251 and 2. Timber products: See section on	Scheme 5 (DOC issued)	Site inspection triggered by DOC (every 3500 sqm).  Annual surveillance test on material under	Annually	
	Timber products: See section on cross/glued laminated timber		Annual surveillance test on material under Scheme 2.		

E O Ductaction to	IA DC 470 Dt 22 at AC 4520 Dt 4 at ICO 024	Cahama F	Cite increation trimpered by DOC (even)	I Americally
5.2 Protection to steel beams that support RC floor (2)	1. BS 476 Pt 23 or AS 1530 Pt 4 or ISO 834	Scheme 5 (DOC issued)	Site inspection triggered by DOC (every 3500 sqm).	Annually
			Annual surveillance test on material under Scheme 2.	
5.3 Protection to timber/ steel flooring (2)	1. BS 476 Pt 21 or AS 1530 Pt 4 or ISO 834	Scheme 5 (DOC issued)	Site inspection triggered by DOC (every 3500 sqm).	Annually
			Annual surveillance test on material under Scheme 2.	
6. Fire-rated Enclosu	rre/ spraying material <sup>(16)</sup>			•
	nder BS 476 Pt 4 or BS 476 Pt 11 or EN 13501-		·	
6.1 Protection to steel structure (2)(3)	1. BS 476 Pt 21 or AS 1530 Pt 4 or ISO 834 and	Scheme 5 (DOC issued)	Site inspection triggered by DOC (every 3500 sqm).	Annually
	2. BS 5234 Pt 2 and		Annual surveillance test on material under Scheme 2.	
	3. EN 520 (gypsum plaster board) and			
	4. ISO 1896 (calcium silicate or cement board)			
6.2 Protection to fire fighting system ie		Scheme 5 (DOC	Site inspection triggered by DOC (every 3500 sqm).	Annually
sprinkler, rising mains, hydrant, etc.	exceed 75°C)	issued)	3300 Sqiii).	
	or		Annual surveillance test on material under Scheme 2.	
	2. AS 1530 Pt 4			
6.3 Protection to building services ie cables, sanitary pipes, chilled water pipes etc	1. BS 476 Pt 20 or AS 1530 Pt 4 or ASTM E119 or ISO 834 or NFPA 251	Scheme 5 (DOC issued)	Site inspection triggered by DOC (every 3500 sqm).	Annually
			Annual surveillance test on material under Scheme 2.	
7 Smoke Curtain / Ba		_		
Materials are listed u 7.1. Smoke Curtain	nder EN 13501-1 (Min Class B) under PLS Sche 1. EN12101-1	me 2 Scheme	Annual surveillance test on material under	NA .
/ Barrier		Scheme 1b (Labels issued)	Scheme 2	
8. Fire-rated duct sys	stem <sup>(16)</sup> Inder BS 476 Pt 4 or BS 476 Pt 11 or EN 13501-	1 (Min A2 olas	os) undar PLS Schomo 2	
	1. BS 476 Pt 24 or AS 1530 Pt 4 or ASTM E119 or ISO 834 or NFPA 251 or EN 1366-1 or EN1366-8 or EN 1366-9	Scheme 5	Site inspection triggered by DOC (every 3500 sqm).	Annually
			Annual surveillance test on material under Scheme 2.	
9. Fire Extinguishing System for Kitchen Hood	1. UL 300	Scheme 5 (Labels issued)	Site inspection triggered by DOC (every 50 labels) or min once per year	Annually
10. Fire Stopping Material (including Fire Rated Collar)	For penetration gaps and linear joints:	Scheme 5 (DOC issued)	Site inspection triggered by DOC (every 1000 openings/ metre run)	Annually
	BS 476 Pt 20 or AS 1530 Pt 4 or ASTM E119 or ISO 834 or NFPA 251 or EN1366-3 or EN 1366-4 or ASTM E814	,	Annual Surveillance testing	
	and 2. ASTM 2307 (for Curtain Wall application)			
	1. BS 476 Pt 22 or EN1364-1 or AS 1530 Pt 4	Scheme 5	NA for Glass block.	Annually
Block/ Glass Partition/ Glass Panel <sup>(7)</sup>	or ASTM E119 or ISO 834 or NFPA 251	(DOC issued)	FR Glass partition - Impact test once every 3 years.	
	and 2. BS 6206 or AS2208 or EN 12600			
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12. Exit sign	1. SS 263 Pt 2 or IEC 60598-2-22	Scheme 5	Scheme 5 - Annually or by trigger (every	Scheme 5 - Annually or by trigger (every 2000
(powered		or Scheme	2000 labels)	labels)
electrically)	and 2. SS 563 Pt 1 or ISO 30061	Scheme 1b (Labels	Scheme 1b - Batch Testing	Scheme 1b - NA
		issued)	Full tests over 3 years	Concine 15 14/
	and 3. SS 563 Pt 2			
13. Emergency	1. SS 263 Pt 2 or IEC 60598-2-22	Scheme 5	Scheme 5 - Annually or by trigger (every	Scheme 5 - Annually or by trigger (every 2000
lighting (self- contained)		or Scheme 1b (Labels	2000 labels)	labels)
	and	issued)		
	2. SS 563 Pt 1 or ISO 30061		Scheme 1b - Batch Testing; Full tests over 3 years	Scheme 1b - NA
	and		o your	
	3. SS 563 Pt 2			
14. Battery System (for exit signs and	1. SS 563 Pt 1 or ISO 30061	Scheme 5 or Scheme	Scheme 5 - Annually or by trigger (every 2000 labels);	Scheme 5 - Annually or by trigger (every 2000 labels),
emergency lighting)		1b (Labels issued)	2000 labels),	idoos),
	and			
	2. SS 563 Pt 2 or AS/NZS 2293-1		Scheme 1b - Batch Testing; Full tests over	Scheme 1b - NA
15. Self-luminous	1. UL 924	Scheme 5 or Scheme	Scheme 5 - Annually or by trigger (every 2000 labels):	Scheme 5 - Annually or by trigger (every 2000 labels).
Sign (powered by radioactive material)		1b (Labels	,	,
	2. SS 508 Pt 1 or ISO 3864 Pt 1	issued)	Scheme 1b - Batch Testing; Full tests over	Scheme 1b - NA
	and 3. SS 508 Pt 2 or ISO 3864 Pt 2			
	and 4. SS 508 Pt 3 or ISO 3864 Pt 3			
	and			
	5. SS 508 Pt 5 or ISO 7010 and			
	6. SS 563 Pt 1 or ISO 30061 and			
	For 'EXIT' sign			
	7. SS 563 Pt 2 (clause C2)			
16. Fire Hosereel	1. EN 671 Pt 1	Scheme 5 or Scheme	Scheme 5 - Annually or by trigger (every	Annually or by trigger (every 1500 labels)
		1b (Labels	1500 labels).	
		issued)	Full test over 5 years per type Scheme 1b - batch testing (full test)	
17. Fire Fighting	1. BS 6391	Scheme 5	Scheme 5 -Annually or by trigger (every	Annually or by trigger (every 1000 labels)
Hose		or Scheme 1b (Labels	1000 labels);	
		issued)		
			Full tests over 5 years per type Scheme 1b - batch testing (full test)	
18. Auditorium	1. BS 5852, clause 12 (ignition source 0,1 & 5)	Scheme 1h	Batch testing covering clause 12	NA .
Seats (8)		(Labels issued)		
19. Fire Damper	A). For fire test:	Scheme 1b	Scheme 5 & Scheme 1b - Annually.	Scheme 1b - NA
		(Labels issued)		
	1. SS 333 Clause 6.3		Full test over 3 years	
	or 2. AS 1530 – 4(when tested to AS 1530, the			
	damper shall be tested with the damper at open position at the start of fire test and be			
	able to completely close during the first 90 sec			
	of the test).			
	or 2 ISO 924 (when tested to AS 1520, the			
	3. ISO 834 (when tested to AS 1530, the damper shall be tested with the damper at			
	open position at the start of fire test and be able to completely close during the first 90 sec			
	of the test).			
	and			
	B). For air-leakage test:			
	_			
	1. SS 333 Clause 6.4 or			
	2. ISO 5176 and ISO 7244			
	or 3. AS 1682 - 1 Clause 5.3			
	-	Ī	Ī	
	and			
	and			
	and C). For closing reliability test:			
	C). For closing reliability test:  1. SS 333 Clause 6.5			
	C). For closing reliability test:			

	and			I
	D). For spring closing force test:			
	1. SS 333 Clause 6.6			
	or 2. UL 555 Clause 13			
20. Fire-rated Door	1. SS 332 Clause 4 or EN 1634-1	Scheme 5	Annually (timber/composite door)	Annually or by trigger (every 500 labels) - Factory
(14)		or Scheme 1b (Labels	Once every 3 years (steel/glass door)	or site
	and For fire -rated glass door:	issued)		
	2. BS 6206 or AS 2208 or EN 12600			
21. Bin/Linen Chute Door	1. BS 476 Pt22	Scheme 5 or Scheme 1b (Labels issued)	Once every 3 years	Annually or by trigger (every 500 labels)
22. Fire-rated Lift- landing/ Dumb Waiter Door	For lift-landing door: 1. BS 476 Pt 22 or EN 81-58	Scheme 1b (Labels issued)	Fire - once every 3 years Impact - once every 3 years	NA
	and For fire-rated glass door: 2. BS 6206 or AS 2208 or EN 12600			
23. Fire-rated Shutter/Fire-rated Curtain	1. SS 489 Clauses 3.5 and 4	Scheme 1b (Labels issued)	Batch inspection - No surveillance.	NA
	or 2. EN 1634-1 (the fire-rated shutter/fire-rated curtain shall close at between 10 sec and 30 sec.)	,	Full tests over 3 years	
24. Fire-rated Hopper / Hatch door	1. BS 476 Pt 22 or EN 1634-1 or AS 1530 Pt 4	Scheme 5 or Scheme 1b (Labels issued)	Once every 3 years	Annually or by trigger (every 500 labels)
25. Portable Fire Extinguisher	1. SS EN 3-7 or SS EN 3-8 or SS EN 3-9	Scheme 5 or Scheme 1b (Labels issued)	Annually or by trigger (every 5000 labels).	Annually or by trigger (every 5000 labels)
20.5			Full tests over 5 years per type	
26. Fire-rated Cables	1. SS 299 or	Scheme 5 (Mark printed on cables)	Full tests over 3 years	Annually
	2. BS 6387 and BS 7846 (Clauses 16.2 and 16.3)			
27. Intumescent Coating System (for protection to steel structure) (9)	EN 16623 (for fire test and weathering test)	Scheme 5 (DOC issued)	Annually - Full test over 3 years.	Annually
	or 2a. BS 8202 Pt 2 (for weathering test)			
	and 2b. BS 476 Pt 21 or AS 1530 Pt 4 or ISO 834 or EN 13381-1 (for fire test)			
28. Landing Valve	1. BS 5041 Pt 1	Scheme 5 or Scheme 1b (Labels issued)	Annually or by trigger (every 1500 labels);	Annually or by trigger (every 1500 labels)
			Full tests over 5 years per type	
29. Breeching Inlet	1. BS 5041 Pt 3	Scheme 5 or Scheme 1b (Labels issued)	Annually or by trigger (every 1000 labels);	Annually or by trigger (every 1000 labels)
			Full tests over 5 years per type	
30. Raised Floor Panel <sup>(10) (16)</sup>	1. BS 476 Pt 4 or BS 476 Pt 11	Scheme 2 (No label issued)	Annual surveillance test	NA
	or 2. EN 13501-1 (Min A2) (applicable to the core material of composite construction)			
31. Material for Wall/Ceiling/Floor Construction <sup>(16)</sup>	1. BS 476 Pt 4 or BS 476 Pt 11 or BS 476 Pt 7 or [BS 476 Pt 6 & BS 476 Pt 7] or EN 13501-1	Scheme 2 (No label issued)	Annual surveillance test	NA
	and 2. For plastic wall/ceiling/floor construction, refer to SCDF circular on the use of plastics dated 1 Oct 2014 for the testing requirements.			

32. Thermal Insulation Material	1. BS 476 Pt 4 or BS 476 Pt 11 or BS 476 Pt 7 or [BS 476 Pt 6 & BS 476 Pt 7] or EN 13501-1	Scheme 2 (No label issued)	Annual surveillance test	NA
	and 2. For plastic wall/ceiling/floor construction, refer to SCDF circular on the use of plastics dated 1 Oct 2014 for the testing requirements.			
33. Finishing material for wall/ ceiling <sup>(16)</sup>	1. BS 476 Pt 4 or BS 476 Pt 11 or BS 476 Pt 7 or [BS 476 Pt 6 & BS 476 Pt 7] or EN 13501-1	Scheme 2 (No label issued)	Annual surveillance test	NA
	and 2. For plastic wall/ceiling finishes, refer to SCDF circular on the use of plastics dated 1 Oct 2014 for the testing requirements.			
34. Roof Covering Material <sup>(15) (16)</sup>	1. BS 476 Pt 4 or BS 476 Pt 11 or BS 476 Pt 7 or [BS 476 Pt 6 & BS 476 Pt 7] or EN 13501-1 or ASTM E108	Scheme 2 (No label issued)	Annual surveillance test	NA
	and 2. For plastic roof covering, refer to SCDF circular on the use of plastics dated 1 Oct 2014 for the testing requirements.			
35. Composite Panel (Cladding to External Wall ) (12) (16)	Applicable to the core material of composite construction:	Scheme 2 (No label issued)	Annual surveillance test	NA
	BS 476 Pt 4 or BS 476 Pt 11 or BS 476 Pt 7 or [BS 476 Pt 6 & BS 476 Pt 7] or EN 13501-1			
	or 2. NFPA 285 and		Annual surveillance test (finger printing).	NA
	<ol><li>For plastic roof covering, refer to SCDF circular on the use of plastics dated 1 Oct 2014 for the testing requirements.</li></ol>			
36. UPVC Window Frame Material (13)	1. ASTM D635	Scheme 2 (No label issued)	Annual surveillance test	NA
37. Door Closer / other hardware (14)	1. SS 332 : Clause 5	Scheme 5 (Mark printed on hardware)	Annual surveillance test	Annually
	or 2. EN 179 or EN1125 or EN 1154 or EN1155 or EN1158 or EN1303 or EN1527 or EN1906 or EN1935 or EN12051 or EN12209			
38. Household Shelter Door	FSSD's requirements	Scheme 5 (Labels issued)	Once every 3 years for cyclic test. Annually for water tighness test, dimension check, CED coating test & rubber gasket test	Annually or by trigger (every 200 labels)
39. Storey Shelter Door	FSSD's requirements	Scheme 5 (Labels issued)		Annually or by trigger (every 200 labels)
40. Cross / Glued Laminated Timber	1. EN 1363 and 2. EN 1364 or EN 1365	Scheme 5 (DOC issued)	Site inspection triggered by DOC (every 3500 sqm). Annual surveillance test on material under Scheme 2.	Annually
41. Finishing material for floor	For plastic floor finishes, refer to SCDF circular on the use of plastics dated 1 Oct 2014 for the testing requirements.	Scheme 2 (No label issued)	Annual surveillance test	NA .
	ic (PV) roof-mounted module			L
Materials are listed u 42.1 Solar Photovaltaic (PV) roof-mounted module	under IEC 61730-2: 2004 with a min fire resistance  1. IEC 61730-2: 2004 (for fire test only)	se rating of Cla Scheme 2 (No label issued)	ass C under PLS Scheme 2 Bi-annual surveillance test	NA

#### Note:

- 'DOC' stands for 'Declaration Of Compliance'.
  ASTM E119 and NFPA 251 are not acceptable for load-bearing elements.
  Clause 3.3.7 of Fire Code shall be complied with.
  The insulation criterion shall be min. 30 minutes. 2.

- Class "0" surface spread of flame. 5.
- Insulation criteria of ducting system shall have both internal and external rating.

- Use permitted in sprinkler protected buildings only.

  Requirements apply to upholstered seats and plastic seats, either in fixed position or retractable type.

  Weathering tests shall include: a) Heating test b) Washing test c) Sulphur dioxide test d) Humidity test e) Natural weathering test (for external use) f) The requirements
- 10. Materials containing plastics shall not be allowed.
- 11. Note 11 is left as blank.

- External wall shall have fire-resistance test rating not less than 1 hour.
   Installation of UPVC window frame shall conform to the FSSD's Guidelines.
   Door closers used in fire-rated door are separately listed under PLS Class Scheme 5
   Insulating lining shall achieve Class "1" flame spread rating.
   Fire classification of construction products & building elements between Euroclass & UK class:

Euroclass (EN 13501-1)	UK class (BS Standard)
A1	Non-Combustible (BS 476 Pt 4)
A2 (or better)	Limited Combustibility (BS 476 Pt 11)
B (or better)	Class '0' (BS 476 Pt 6 & BS 476 Pt 7)
C (or better)	Class '1' & '2' (BS 476 Pt 7)
D (or better)	Class '3' (BS 476 Pt 7)
E (or better)	Class '3' (BS 476 Pt 7)
F (or better)	Class '4' (BS 476 Pt 7)

# PROVISION OF MINIMUM INFORMATION BY CERTIFICATION BODIES ON CERTIFIED FIRE SAFETY PRODUCTS/MATERIALS UNDER PLS

1	Applicant (	includes	company	's name	address	contact nos	١
1.	Applicant	includes	company	s manne,	audicss.	, comact nos	,

- 2. Brand
- 3. Model
- 4. Certificate No
- 5. Scheme of COC
- 6. COC Expiry Date
- 7. Description
- 8. Country of Origin
- 9. Product Details (includes insulation, integrity, density/weight, etc)
- 10. Test Standard
- 11. Test Report Reference

# PROVISION OF MINIMUM INFORMATION BY CERTIFICATION BODIES ON PRODUCTS/MATERIALS WHICH FAILED THE CERTIFICATION REQUIREMENTS

- 1. Applicant (includes company's name, address, contact nos)
- 2. Brand
- 3. Model
- 4. Description
- 5. Country of Origin
- 6. Product Details (includes insulation, integrity, density/weight, etc)
- 7. Test Standard
- 8. Test Report Reference