

Test Report No. 7191181983-EEC18
dated 10 Apr 2018



PSB Singapore

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Subject

TESTING OF FIBRE OPTIC CABLE

Client

Fibertek Pte Ltd
3015A Ubi Road 1
#04-13
Singapore 408705

Attn: Mr. Alvin Wong

Sample Submission Date

05 Mar 2018

Date(s) of Performance of Test

06 Mar 2018 to 09 Apr 2018

Description of Sample

Type	:	Armoured(CST) LSZH Uni-Tube Fiber Optic Cable
Brand	:	FIBERTEK
Model	:	FUTGCZ004009
Optical fibre count	:	4 cores
Fibre type	:	Singlemode 9/125µm
Filling compound	:	Thixotropic gel
Uni loose tube	:	Polybutylene Terephthalate (PBT)
Strength member	:	Glass yarn
Moisture barrier	:	Water swellable yarn
Armour	:	Corrugated steel tape
Outer jacket	:	LSZH - Black



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Method of Test

The assessment detailed in this document was carried out in accordance with the following test standards:

- a) IEC 60332-1-2: 2014 + AMD1: 2015;
- b) IEC 60332-3-24: 2009;
- c) IEC 61034-2: 2013;
- d) IEC 60754-1: 2011 and
- e) IEC 60754-2: 2011.

Results

Test Standards	Test Description	Results	Requirements
IEC 60332-1-2	Flame propagation on single cable Overall diameter of cable: 9.2 mm Flame application time: 60 s	Complied	The distance from the lower edge of the top support to the upper and lower onset of charring shall be greater than 50mm and less than 540mm respectively.
IEC 60332-3-24	Test on bunched wires or cables (Category C) 1) Number of test pieces: 29 2) Total volume of non-metallic material, per metre of test sample: 0.0512 l/m 3) Method of mounting: Touching 4) Number of layers: 1 5) Number of test pieces in the layer: 29 6) Flame application time: 20 min 7) Number of burners: 1 8) Time to extinction of all burning or glowing: - Maximum extent of the charred portion measured on the test sample. (m)	0.6	The maximum extent of the charred portion measured on the sample shall not have reached a height exceeding 2.5 m above the bottom edge of the burner.
IEC 61034-2	Measurement of smoke density of cable burning under defined conditions Overall diameter of cable: 9.2 mm Number of test pieces: 4 Light transmittance (%)	66	Minimum: 60



Results (con't)

Test Standards	Test Description	Results	Requirements
IEC 60754-1	<u>Determination of halogen acid content (as HCl)</u> Concentration of halogen acid (mg/g) a) Fibre b) Loose tube c) Glass yarn d) Outer jacket	2 2 2 2	Maximum: 5 (see remark 1)
IEC 60754-2	<u>Determination of degree of acidity of gases</u> 1) pH value at 25°C when related to one litre of water a) Fibre b) Loose tube c) Glass yarn d) Outer jacket 2) Conductivity value (µS/mm) a) Fibre b) Loose tube c) Glass yarn d) Outer jacket	5.4 4.8 5.3 5.1 0.4 1.0 0.6 0.6	Minimum: 4.3 Maximum: 10

Remarks:

- 1) There is no requirement for IEC 60754-1: 2011. The requirement (Maximum: 5 mg/g) is generally specified in the test standards of electric cables.
- 2) The sample tested is deemed to comply with the following test standards:
 - a) IEC 60332-1-2: 2004 + AMD1: 2015;
 - b) IEC 60332-3-24: 2009;
 - c) IEC 61034-2: 2013;
 - d) IEC 60754-1: 2011 and
 - e) IEC 60754-2: 2011.


 QUEK RUI SHENG
 TESTING OFFICER

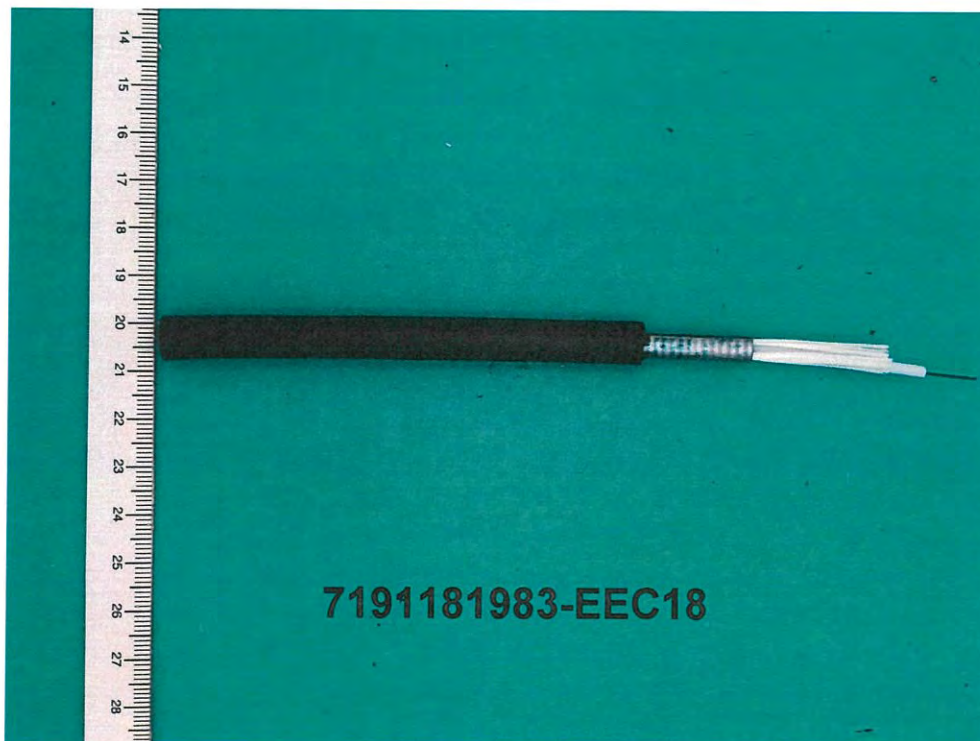

 TAN WEI LIANG
 ASSISTANT MANAGER
 ELECTRICAL & ELECTRONICS

Appendix I

a) Marking: Printed on the jacket

FIBERTEK FUTGCZ004009 04x9/125um ARMOURED(CST) LSZH FIBER OPTIC CABLE YR2018

b) General view of the cable



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July 2011

