Test Report

On Behalf of

Misumi (CHINA) PRECISION Machinery Trading Co., Ltd.

Cable

Model: E-PUR1000BS-0.34-3P-100, E-PUR1000-0.5-4-100, E-PUR2000BS-0.25-2P-100, E-PUR2000-2.5-4-100
(E-PUR1000-XX-XX-100, E-PUR1000BS-XX-XX-100, E-PUR2000-XX-XX-100,E-PUR2000BS-XX-XX-100: In the model, "1000" indicates a movement life of 10 million times, and "2000" indicates 20 million times. "BS" indicates that there is a shielded twisted pair structure, while the absence of "BS" means there is no shield and twisted core wires. The first "XX" represents the cross-sectional area of the cable, and the second "XX" represents the number of cores. The materials are the same, and the differences do not affect the safety performance.)

Prepared For : Misumi (CHINA) PRECISION Machinery Trading Co., Ltd.
1 Floor,1 Building, No.1058, Diling Road, Fengxian District, Shanghai, China

Prepared By : **TMC Testing Services (Shenzhen) Co., Ltd.**
1/F. of Building A1, 5/F. of Building B1, & 1/F. of Building A3, Xinshidai Gongrong Industrial Park, No.2, Shihuan Road, Shilong Community, Shiyan Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Tel: (86)755 86642861
Web: www.tmc-lab.com
E-mail: Cert@tmc-lab.com

EN 60332-1-2: 2004
Tests on electric and optical fibre cables under fire conditions
Part 1-2: Test for vertical flame propagation for a single insulated wire or cable – Procedure for 1 kW pre-mixed flame

Report

Reference No.:	MK25040177P01-S01
Tested by (Engineer):	Augus wang
Approved by (Manger):	Dodd Tang
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Testing laboratory

Name:	TMC Testing Services (Shenzhen) Co., Ltd.
Address:	1/F. of Building A1, 5/F. of Building B1, & 1/F. of Building A3, Xinshidai Gongrong Industrial Park, No.2, Shihuan Road, Shilong Community, Shiyan Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Testing location:	Same above

Application Name:	Misumi (CHINA) PRECISION Machinery Trading Co., Ltd.
Address:	1 Floor,1 Building, No.1058, Diling Road, Fengxian District, Shanghai, China
Manufacturer:	Suzhou cableplus Technologies Co.,Ltd No.7 Nanxin Road, Changkun Industrial Park, Shajiabang, Changshu, Jiangsu, China

Test specification

Standard:	EN 60332-1-2:2004+A1:2015
Test procedure:	Type test
Non-standard test method:	N/A

Test item

Description:	Cable
Trade Name:	MISUMI
Model and/or type reference:	E-PUR1000BS-0.34-3P-100, E-PUR1000-0.5-4-100, E-PUR2000BS-0.25-2P-100, E-PUR2000-2.5-4-100 (E-PUR1000-XX-XX-100, E-PUR1000BS-XX-XX-100, E-PUR2000-XX-XX-100,E-PUR2000BS-XX-XX-100: In the model, "1000" indicates a movement life of 10 million times, and "2000" indicates 20 million times. "BS" indicates that there is a shielded twisted pair structure, while the absence of "BS" means there is no shield and twisted core wires. The first "XX" represents the cross-sectional area of the cable, and the second "XX" represents the number of cores. The materials are the same, and the differences do not affect the safety performance.)
Rating(s):	300V

Testing:	
Date of receipt of test item:	April 22, 2025
Date (s) of performance of tests:	May 09, 2025

1. Purpose of test

To determine the performance of a specimen of a cable when it is subjected to the conditions of test specified in EN 60332-1-2: 2004, “Tests on electric and optical fibre cables under fire conditions - Part 1-2: Test for vertical flame propagation for a single insulated wire or cable – Procedure for 1 kW pre-mixed flame”.

The test was performed in accordance with the procedure specified in EN 60332-1-2:2004+A1:2015 and this report should be read in conjunction with that Standard.

The burner was applied for 60 seconds.

2. Scope of test

EN 60332-1-2:2004+A1:2015 specifies a method of test for resistance to vertical flame propagation for a single electrical insulated conductor or cable, or optical cable, under fire conditions. Part 1 specifies the test apparatus and Part 1-2 specifies the test procedures.

EN 60332-1-2:2004+A1:2015 specifies the use of a 1kW pre-mix flame and is for general use, except that the procedure specified may not be suitable for the testing of small single insulated conductors or cables of less than 0.5mm^2 total cross-section because the conductor melts before the test is completed, or for the testing of small optical fibre cables because the cable is broken before the test completed. In these cases, the procedure given in EN 60332-2 is recommended.

The performance requirements for a particular type or class of insulated conductor or cable should preferably be given in the individual cable standard. In the absence of any given requirement it is recommended that those given below should be taken as a minimum level.

The single insulated conductor or cable shall pass the test if the distance between the lower edge of the top support and the onset of charring is greater than 50mm.
In addition, a failure should be recorded if burning extends downwards to a point greater than 540mm from the lower edge of the top support.
If a failure is recorded two more tests shall be carried out. If both tests result in passes the insulated conductor or cable shall be deemed to have passed the test

3. Description of the test subject

Product name	Cable						
Cabel marking	MISUMI E-PUR1000-0.25-*-100 E173648 AWM STYLE 20549 80℃ 300V FT2 CE XXXXXXXX *****m						
Cable function	Fire system connections						
Voltage Rating	300V						
Number of cores x core size	3C x 0.25mm²	4C x 0.25mm²	6C x 0.25mm²	8C x 0.25mm²	10C x 0.25mm²	12C x 0.25mm²	20C x 0.25mm²
Conductor	Wire sepc.	24AWG					
	Material	Bare soft stranded copper wire					
	Sepc.	32/0.10mm					
	outer diameter	0.65mm					
Insulation	Material	PP					
	thickness	0.20mm					
	outer diameter	1.15±0.10mm					
Protecting bush	Material	PU					
	average thickness	0.76mm	0.76mm	0.76mm	0.76mm	0.76mm	0.76mm	0.85mm
	outer diameter	4.30± 0.20mm	4.60± 0.20mm	5.30± 0.20mm	6.00± 0.20mm	6.70± 0.20mm	7.90± 0.30mm	9.80± 0.30mm
	Colour	Grey					
Maximum DC resistance of the conductor at 20℃(Ω/km)	87.6						
Brief description of manufacturing process	The conductor wires are insulated by extrusion of a continuous silicone rubber layer, which has been high temperature cross-linked. The cores are then twisted together. Finally, the sheathing is applied by a semi- compression extrusion process.						

4. EN 60332-1-2: 2004+A1:2015 Tests on electric and optical fibre cables under fire conditions - Part 1-2: Test for vertical flame propagation for a single insulated wire or cable – Procedure for 1 kW pre-mixed flame

4.1 Precondition

Precondition	Temperature(℃)	Humidity(%)	Duration(H)
	23±5	50±20	≥16

4.2 Test results

Measurements/observation	Test
The distance between the lower edge of the top support and the on set of charring(mm)	405

The distance between the lower edge of the top support and the charring doenwards(mm)	515

Note: If a failure is recorded, two more tests shall be carried out. If both tests result in passes, the insulated conductor or cable shall be deemed to have passed the test.

Reqiorement:

1) The single insulated confuctor or cable shall pass the test if the distance between the lower edge of the top support and the on set of charring is greater than 50mm.
2) In addition, a failure shall be recorded if charring extenda downwards to a point greater than 540mm from the lower edge of the top support.

Conclusion: Pass.

Photo Document

Fig. 1 General view

END OF REPORT